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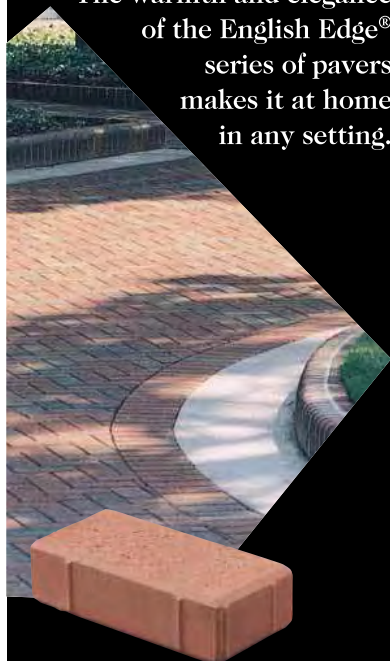
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NEWS EDITOR

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DEPUTY ART DIRECTOR

Kristofer E. Rabasca, kris_rabasca@mcgraw-hill.com

ASSOCIATE ART DIRECTOR

Encarnita Rivera, encarnita_rivera@mcgraw-hill.com

ILLUSTRATOR

I-ni Chen

PRODUCTION MANAGER

Juan Ramos, juan_ramos@mcgraw-hill.com

COPY EDITOR

Leslie Yudell, leslie_yudell@mcgraw-hill.com

EDITORIAL SUPPORT

Linda Ransey, linda_ransey@mcgraw-hill.com

EDITORIAL ASSISTANTS

Monique Francis, monique_francis@mcgraw-hill.com
John Gendall, john_gendall@mcgraw-hill.com
Christopher Kieran, christopher_kieran@mcgraw-hill.com

CONTRIBUTING EDITORS

Raul Barreneche, Robert Campbell, FAIA, Andrea Oppenheimer Dean,
David Dillon, Lisa Findley, Blair Kamin, Nancy Levinson, Thomas
Mellins, Jayne Merkel, Robert Murray, Andrew Pressman, FAIA,
Nancy B. Solomon, AIA, Michael Sorkin, Michael Speaks, Ingrid Spencer

SPECIAL INTERNATIONAL CORRESPONDENT

Naomi R. Pollock, AIA

INTERNATIONAL CORRESPONDENTS

David Cohn, Claire Downey, Tracy Metz

WEB DESIGN

Susannah Shepherd, susannah_shepherd@mcgraw-hill.com

WEB PRODUCTION

Laurie Meisel, laurie_meisel@mcgraw-hill.com

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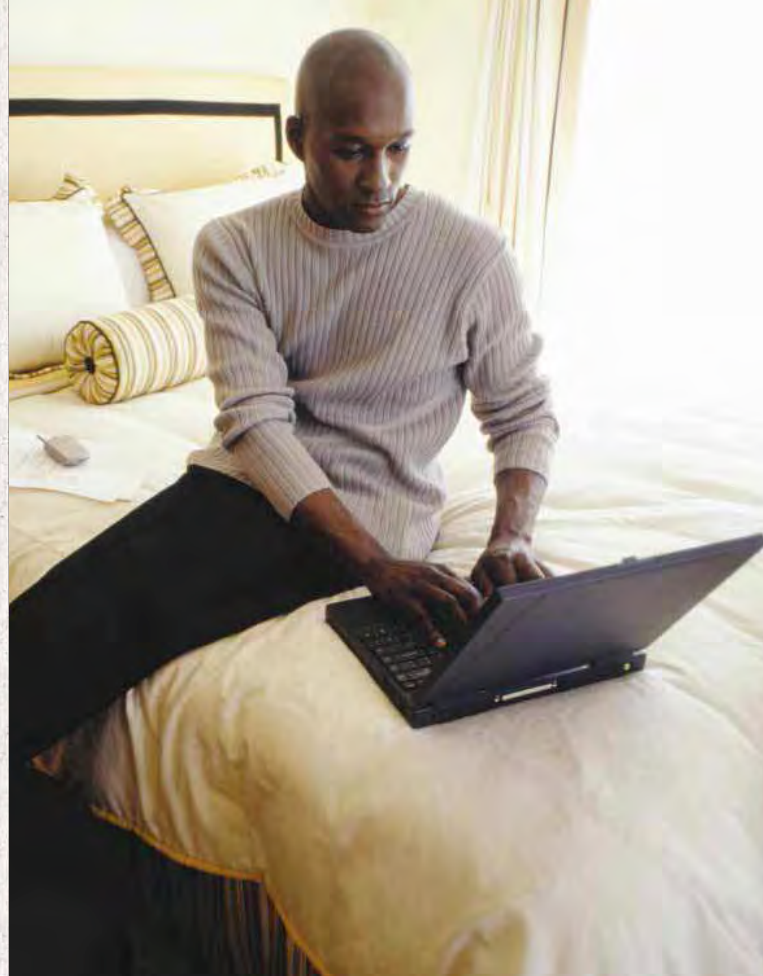


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DIRECTOR, MARKETING COMMUNICATIONS VICE PRESIDENT, CIRCULATION DIRECTOR, CIRCULATION

Deborah Smikle-Davis, deborah_smikle-davis@mcgraw-hill.com
Maurice Persiani, maurice_persiani@mcgraw-hill.com
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Susan Valentini, susan_valentini@mcgraw-hill.com
Stephen R. Weiss, stephen_weiss@mcgraw-hill.com
Brenda Griffin, brenda_griffin@mcgraw-hill.com
Jeannine Boffa, jeannine_boffa@mcgraw-hill.com

DIRECTOR, SALES, PRODUCT NEWS

Janet McLiverty, janet_mcliverty@mcgraw-hill.com

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Ike Chong, ike_chong@mcgraw-hill.com,
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ASSOCIATIONS: Charles Fagan - phone: (212) 904-2547 Fax: (312) 233-7488 Email: charles_fagan@mcgraw-hill.com

TECHNOLOGY: Mark Glasner - phone: (415) 357-8191 Fax: (415) 357- 8005 Email: mark_glasner@mcgraw-hill.com

WORKFORCE/RECRUITMENT: Gilda Falso - phone: (212) 904-2422 Fax: (212) 904-2074

Email: gilda_falso@mcgraw-hill.com, Diane Soister - phone: (212) 904-2021 Fax: (212) 904-2074

Email: diane_soister@mcgraw-hill.com

PRODUCT NEWS SPOTLIGHT: Deidre Allen, phone: (609) 426-7738 fax: (609) 426-7136 Email: deidre_allen@mcgraw-hill.com
Kameesha Saunders, phone: (609) 426-7703 Fax: 609-426-7136
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INTERNATIONAL

GERMANY: Martin Drueke - phone: (49) 202-27169-12 Fax: (49) 202-27169-20 Email: drueke@intermediapartners.com

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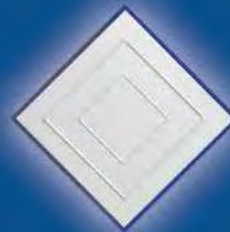
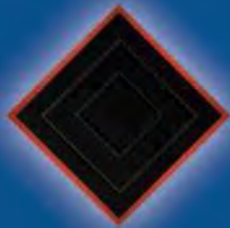
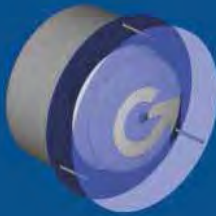
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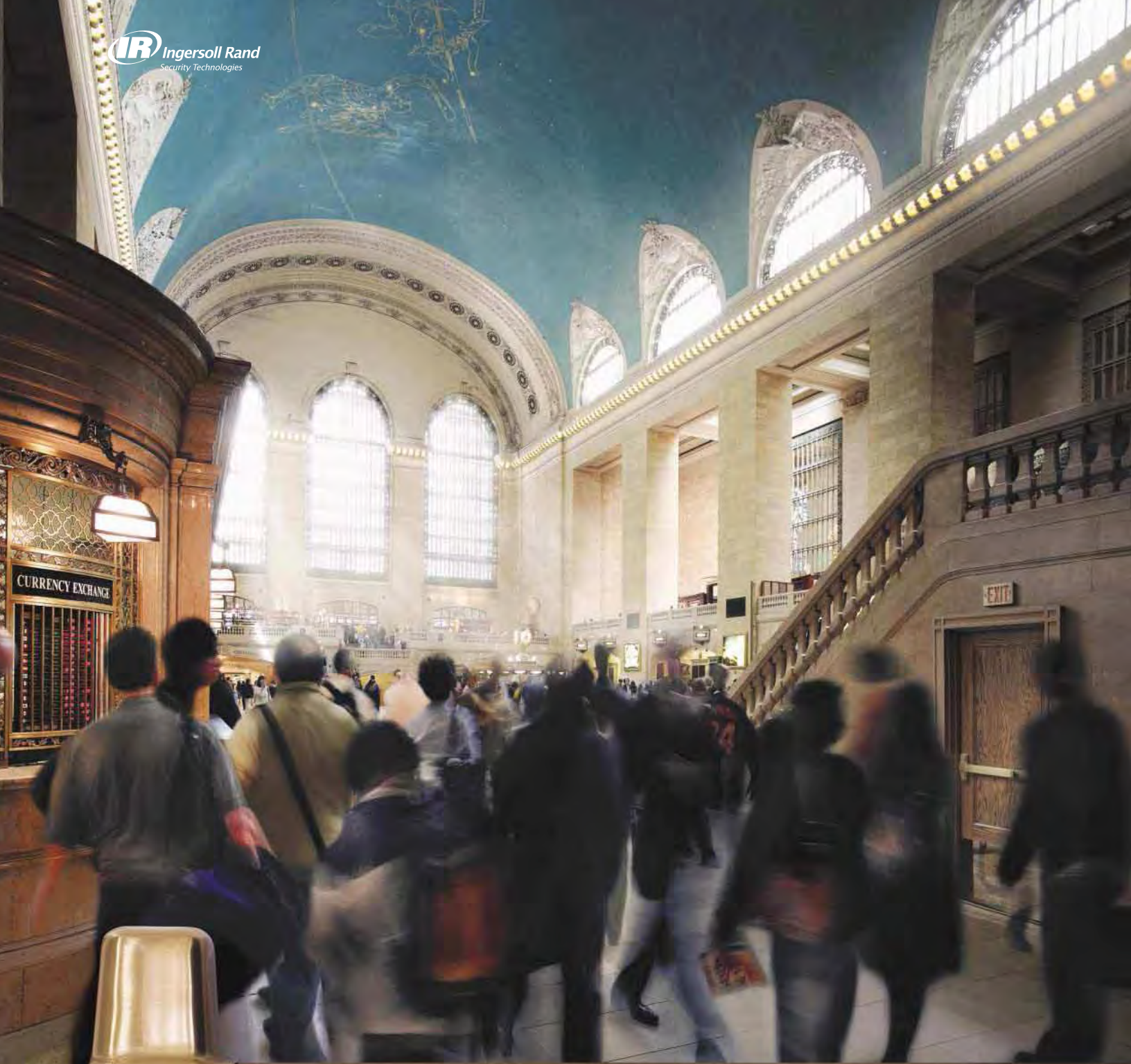


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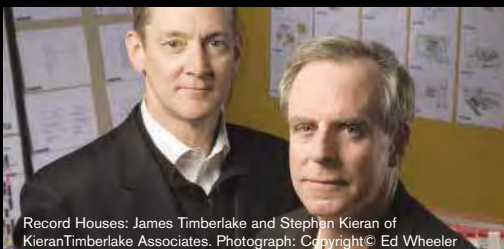
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Coming Soon: Your Content

On April 15, we will introduce an exciting, powerful suite of tools that will allow you, our readers, to contribute content to our online community. You can share photos of your projects, create a personal profile, rate projects by your peers, and comment on and recommend articles from the magazine.



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While no two houses of the seven dwellings chosen for Record Houses this year arose from similar circumstances, each was generated from extraordinary challenges. Exclusively online, see the architects whose vision and problem-solving prowess led to the creation of each of these unique abodes, and see renderings and drawings that you won't find in the magazine's printed pages.



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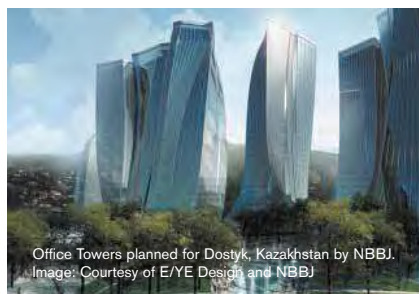
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Here's Your Chance

Editorial

By Robert Ivy, FAIA

We have talked at you for 116 years. Every month, the members of the ARCHITECTURAL RECORD audience receive our curatorial choices—the architectural projects, the types of buildings and plans, the interiors, the houses, the lighting, the technical questions, and the cultural happenings, that we, the editorial staff, choose for you. Consistently, in correspondence and at live events, we listen as best we can, then attempt simultaneously to stimulate and inform. Each month, we try to bring you the latest, the best, the most provocative, as well as the highest examples of architectural work, domestically and around the world. You regularly respond to our choices, usually positively.

Sometimes, we editors are accused of being too “New York-centric,” or too “bicoastal” (all California and the East Coast), or favoring “starchitecture”—that is, purveying the work of a few, select names that constantly reappear in the pages of print media and online. You have told us, “Our clients would never let us get away with the projects you show,” or, “The kind of work you’re publishing doesn’t match the kind of work we do in the Midwest.” We’ve heard that, too.

If any of those arguments sound remotely familiar, if you hail from the Midwest or the Deep South and don’t see enough of your own kind of work in these pages, listen up! Here’s your chance. On April 15, ARCHITECTURAL RECORD is launching a bold new initiative to reach out to our entire community, allowing you, the reader, to participate more actively in the content of our publication. As promised in an earlier editorial, McGraw-Hill Construction and ARCHITECTURAL RECORD have invested in powerful new community-building digital tools allowing you to help steer the ship. Here’s what we are offering.

As you may be aware, we already provide forums online centered on a few key topics, including sustainability, registration, and licensure. After a simple sign-on, you’re in the forum and can submit your own ideas; it’s easy to do. At mid-month, the forums have been augmented by a suite of tools allowing you a range of options.

For the first time, we have constructed photo and drawing galleries that allow you to post your own content to our Web site. Gathered around five critical areas of interest, these galleries permit you to share your best

work, wherever it occurs, with your peers throughout the world. The requirements to post include your acknowledgment that you control (or own) the photo rights to anything published. That fundamental condition applies to all publishing, electronic or print.

And if you don’t like the type of architecture we, the editors, have chosen, you can vote and tell the world. We are instituting a rating system that allows you to evaluate every significant project that appears online and in print by a simple-to-use tabulation system: Vote and immediately see the results. You can even comment on the projects that you love (or hate).

If you find a particular article in any issue helpful, such as the one on the technology of building information modeling that appears in this issue, you can recommend that column to others by casting a vote. We have also inaugurated blogs—staff-derived experiences and opinions, as well as blogs aggregated from outside sources—that broaden the kind of coverage we provide and allow us all to comment on what we’ve just seen or experienced. We would be pleased to consider blogs or bloggers that you value, permitting RECORD to become more immediate and more relevant to your world.

In the past, when we’ve asked whether or not you sent in your own projects for consideration for publication, most often you’ve answered, “No.” It was too hard to do, or too expensive, you said. As of April 15, that excuse no longer flies. We will use the galleries as sources, examining them for the best examples of domestic work, and including a select few in print and in expanded Web coverage through an informal competition. All you have to do is sign into the system and post to the galleries.

From now on, you cannot hide behind an excuse. For your best ideas, sign up and post. Vote for what you like. Send in your work. You asked, and we’re providing the tools. Now put up, or—oh well, you know.

Letters

Strong notes

Thank you for a really strong March issue, with many relevant projects. There's an especially nice piece on Diller Scofidio + Renfro's Institute of Contemporary Art [page 108], with a clever last sentence and all—finally I have a reason to go to Boston again! It is too bad, however, that the lenticular film for the museum's Founders' Gallery was nixed. Though I understand the impulse to capture the big one-liner view, this incident reflects the difficulty architects face when trying to address the more nuanced conditions of our complex contemporary life.

Also in the same issue, Machado and Silvetti's Provincetown Art Association and Museum [page 102] reminds me of how good that practice is when it comes to putting contemporary additions onto traditional buildings.

—*Li Wen, AIA*
Gensler
Los Angeles

The next generation

After reading the articles in Record News on diversity ["Architecture profession slowly gains diversity" and "Design symposia focus on African-Americans," March 2007, page 34], I would suggest an alternate view and offer a challenge to our profession regarding where the "blame," if any, lies in the slow growth and development of a more significant representation of minorities in our profession.

I believe it is not the failure of the schools to attract minority students. Where there is no group awareness of the opportunity, there can be little development of a cohort to attract. It is our challenge as a profession to open the eyes of these students and engage the communities from which they will emerge. We need to put into play a plan that includes career days and other

awareness-raising events and programs, to create the students who will be the next generation of architects.

—*Jud Kline, AIA*
Cleveland

The "A" list

I am not surprised by the fact that the Empire State Building was voted number one on America's List of Favorite Buildings [Record News, "AIA releases results from its 'Top 150' buildings survey," March 2007, page 43]. Its stately grace and reserved majesty have been the iconic symbol of New York for as long as anyone can recall.

More important—and in response to the committee wondering why more Modern architecture was not on the list—the answer is as simple as the Empire State Building itself: The building appeals to the common person. While Modern design may have numerous salient points in the architectural world, most of it is viewed by nonpractitioners as odd and unappealing. Hence, when you compare a structure such as the above to, say, Zaha Hadid's Rosenthal Center for Contemporary Art in Cincinnati [RECORD, August 2003, page 86], whose ominous, precast-concrete jumble of geometric shapes look more like a foundry form than a building, it should be of little wonder why it's not on the list, and the Empire State Building is.

—*Clifford Archer, AIA*
Levittown, N.Y.

Girl power

As life would have it, I started working for a general contractor 12 years ago, as a receptionist, and now I am the estimator for the company, and they still let me in even though they know I have a biology degree. Working in contracting, a profession for men who are engineers by education, in a typical southern town, is, as you would expect, not very easy for a

woman. But the times they are a changin'. I was so pleased to read your feature, "Not Only Zaha" [December 2006, page 58]. I knew it was only a matter of time before the impact women are having on the industry would be more widely recognized. The increase in the number of women as lead architects is amazing. And I notice more and more younger women who today are backing up the lead architects and who will some day be stamping their own names on drawings. I hope to make my own contribution backing these women and helping them change the world, building one project at a time.

—*Christina McAlhaney*
Brantley Construction Company
Charleston, S.C.

Contextual correction

Greetings from Tokyo. On behalf of Fumihiko Maki, we wanted to point out an error in the *FOBA: Buildings* book review published in your February issue [page 48]. The review states, "Fumihiko Maki, a Kyoto native who has lived in Tokyo for many years, addressed the city in his projects there by ignoring it, creating minimal, universal buildings."

In fact, Mr. Maki was born and raised in Tokyo, and he only has one major project in Kyoto—the National Museum of Modern Art. "Minimal" and "universal" as descriptions may or may not be appropriate, depending on one's point of view, but I think you would agree that Mr. Maki does not typically adopt the stance of "ignoring" the context in which he builds, particularly in a sensitive environment such as Kyoto.

—*Michel van Ackere, AIA*
Maki and Associates
Tokyo

Taking the stand

I am a long-time reader, and a first-time writer, inspired to respond to

your coverage of Morphosis's U.S. Courthouse in Oregon [March 2007, page 94]. This building is a fine example of wasted taxpayer money. I grow tired of seeing architects trying to create design statements with each new project. My first impression was "what is it"? It does not resemble in any way any courthouse I have ever seen. That the project came in at over \$288 a square foot, the only award I can see this building getting would be a "golden fleece" award for all the unnecessary elements of design that Thom Mayne incorporated in the name of "making a statement."

—*Michael Frank, AIA*
Orlando

Corrections

A February 2007 story on lighting designer Abhay Wadhwa [page 160] had incorrect information on one of Wadhwa's projects. The client name is Ivan Pavicic 3W13, the architect is Avi Oster Architecture, and the project includes seven condominium floors, not four. A March news item about Dion Neutra selling his firm's last commercial building [page 40] misstated the square footage, which is 4,800, and misspelled the name of his firm's Maslon House. A March technology story on Haworth's Zody chair [page 170] misspelled the manufacturer's name. Because of a late change of venue for the GreenBuild Expo (held November 7–9), it should be noted that the correct location is Chicago, not Los Angeles, as mentioned in the March issue's Product section [page 193]. A drawing featured in RECORD's Web-site house ad [page 18] should have been identified as Zero Energy Home, by Zoka Zola, not a photograph of the ICA.

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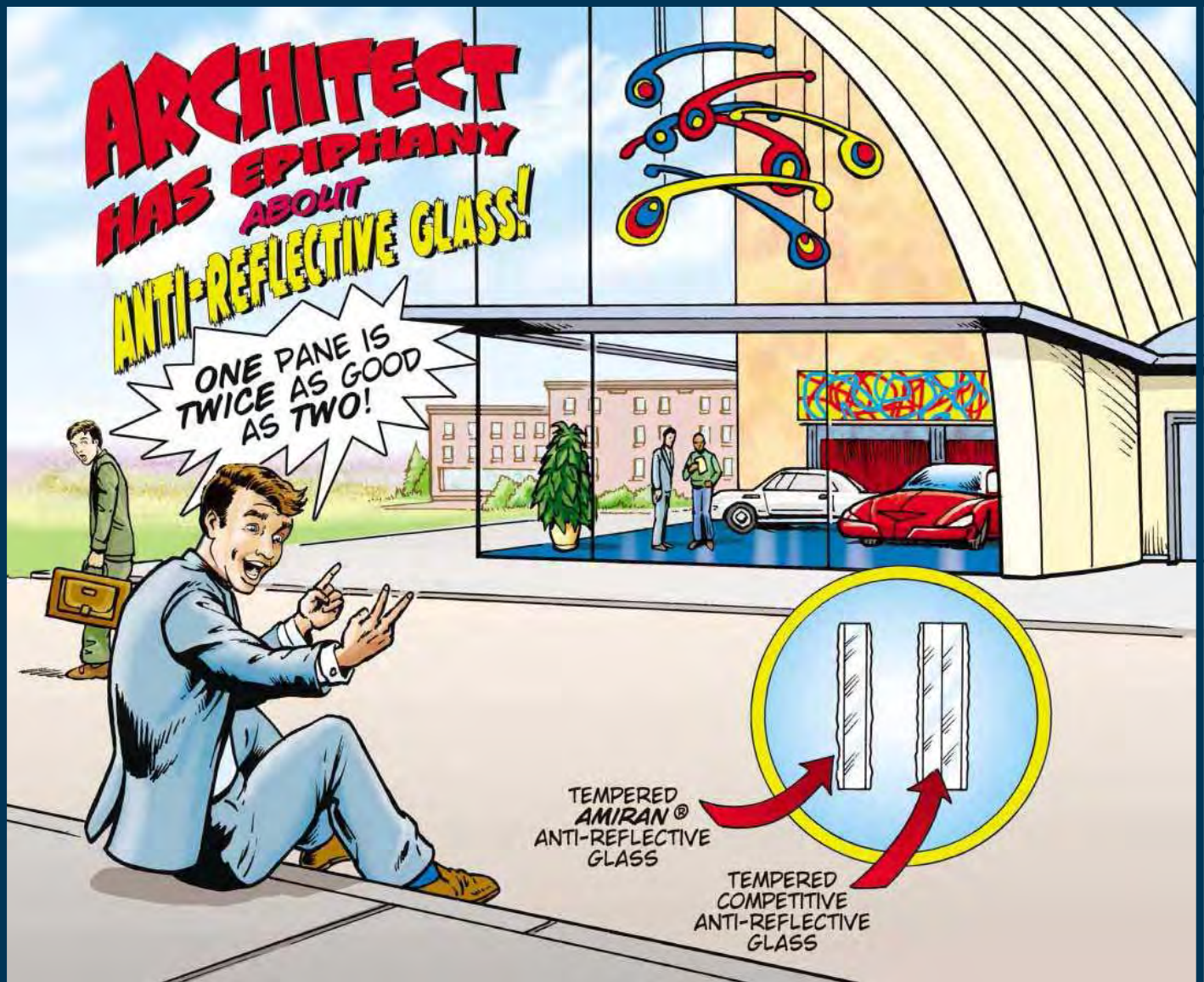
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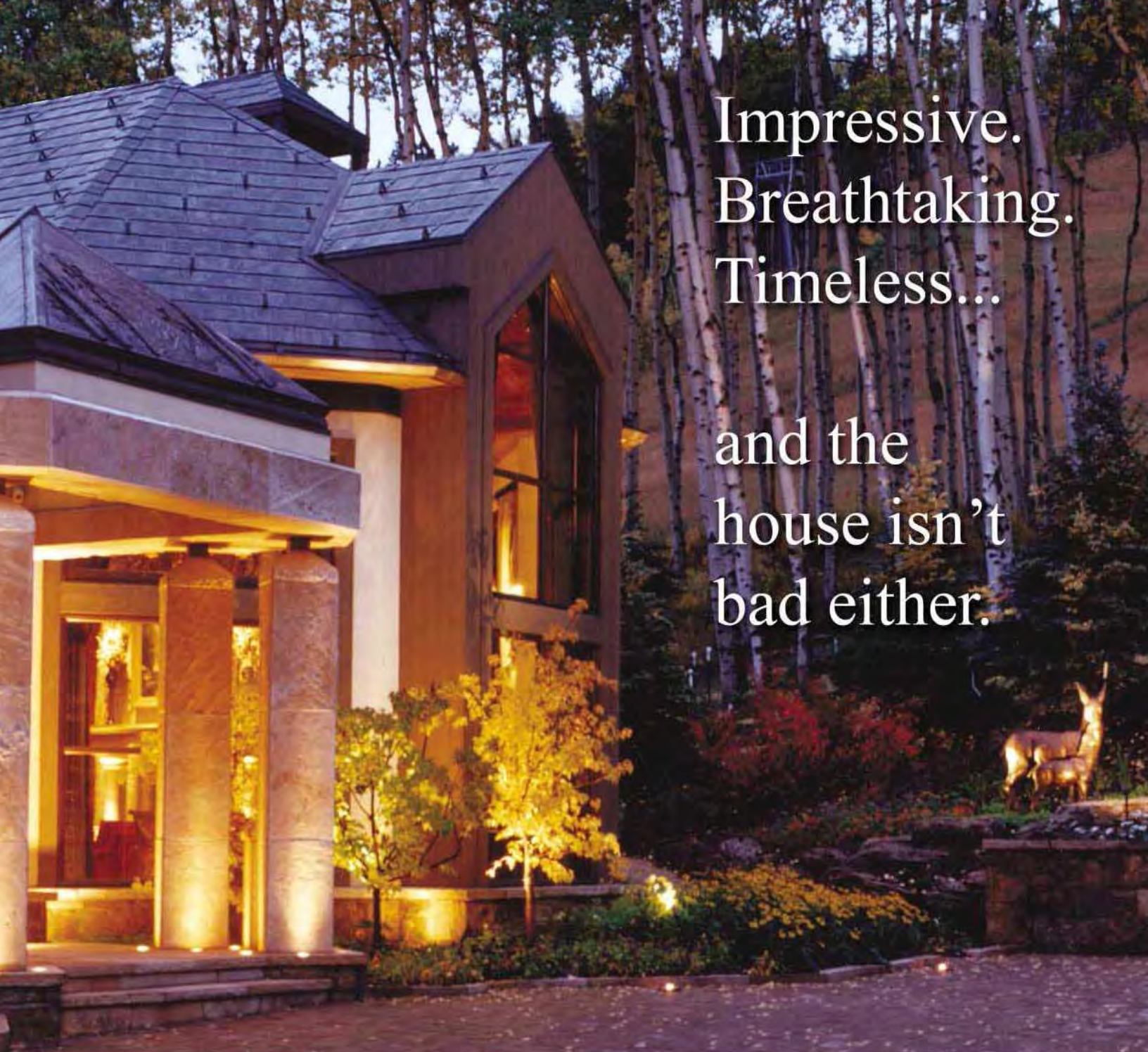
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Richard Rogers wins the 2007 Pritzker Architecture Prize

Richard Rogers is this year's winner of the Pritzker Architecture Prize, the profession's highest honor. The 73-year-old architect heads the Richard Rogers Partnership, which he established in London 30 years ago. Jurors praised his work as representing "defining moments in the history of contemporary architecture."

One of Rogers's best-known works is also among his earliest: the Centre Georges Pompidou, in Paris, of 1977, designed with Renzo Piano. Rogers and Piano, who were then in partnership together, won the commission after an international competition in 1971. As Pritzker jurors observed, the Pompidou's striking appearance—with a facade dominated by HVAC conduits, escalators, and other service elements typically relegated to a building's core—"revolutionized museums, transforming what had once been elite monuments into popular places of social and cultural exchange." Another early work, the Lloyd's of London office tower, completed in 1986, displayed a similar inside-out sensibility and cemented Rogers's reputation for expressionist architecture.

Born in Florence, Italy, Rogers trained at the Architectural Association in London and earned his master's degree in architecture from Yale University. There his path crossed with a number of other design giants: Paul Rudolph, who headed the architecture school; James Sterling, who taught Rogers; and Norman Foster, a fellow student with whom he opened a practice after the pair graduated and returned to England.

Although Rogers's recent works, such as London's Millennium Dome, in 2000, and Terminal 4 at the Madrid Barajas Airport, which opened in



Buildings that launched the career of Richard Rogers include the Centre Georges Pompidou, designed with Renzo Piano, of 1977 (top right), and Lloyd's of London (center), finished in 1986. New works include the proposed Leadenhall Building (center right); the Millennium Dome (above right), finished in 2000; and 2005's National Assembly for Wales (above left).

2005 [RECORD, October 2005, page 150], continue to display his flair for showcasing the purely functional elements of a building, he has increasingly concerned himself with larger scales—both urban and global. "Cities are where life is most precarious; they are also where we have the greatest tangible opportunity for improvement, intervention, and change," he said in a 1995 lecture. In addition to serving as the

mayor of London's chief adviser for architecture and urbanism, Rogers chaired the United Kingdom's Urban Task Force. Established in 1998, this group studied the causes of urban decline and outlined the groundwork for creating a future urban renaissance. Describing this vision, Rogers observed that tomorrow's cities "will no longer be zoned as today in isolated, one-activity ghettos; rather, they will resemble the more richly

layered cities of the past. Living, work, shopping, learning, and leisure will overlap and be housed in continuous, varied, and changing structures."

Rogers, made a British lord in 1996, is the fourth U.K.-based architect to win the Pritzker in its 28-year history; the other three were Zaha Hadid, Foster, and Sterling. He will receive the honor, which comes with a \$100,000 grant, at a ceremony in London this June. *James Murdock*

Freedom Tower questioned amid rising costs

As work on the Freedom Tower's foundations progresses, with an eye to vertical construction beginning next year, observers are expressing doubts over the project's total price tag, which seems poised to rise at a faster rate than the building itself.

In late February, the Port Authority of New York and New Jersey officially authorized construction of the Skidmore, Owings & Merrill-designed building, which forms the symbolic cornerstone of the rebuilt World Trade Center complex. The agency also approved the awarding of contracts worth \$500 million for continuing construction on the Freedom Tower's foundations, which began last year.

A press release stated that the contract amounts fall "within planned-for contingencies common to projects of this scale," a roughly 4 percent margin. The building's total price tag is currently set at \$2.88 billion. But many observers believe that the final number will rise far higher.

Barry LePatner, Hon. AIA, a real estate attorney and construction-cost expert, contends that the Freedom Tower's initial bid numbers

were virtually meaningless—unless construction companies agree to sign fixed-cost contracts, which seems unlikely. The problem, he explains, is that contractors often lowball their estimates to win projects and then file change orders and add other fees to make up the difference later.

Prominent real estate developers Douglas Durst and Anthony Malkin have also criticized the project's finances. Taking out advertisements in major New York City newspapers, they contended that Lower Manhattan has an oversupply of office space—and that the Freedom Tower is struggling to attract commercial tenants aside from government agencies.

New York's new governor, Eliot Spitzer, pledged his support for the Freedom Tower's construction after taking office this winter, a critical if somewhat symbolic step. Even so, Spitzer as well as New Jersey governor Jon Corzine and New York City mayor Michael Bloomberg have said that they are open to selling it to a private developer, which could presumably redesign it. The founda-

Archive offers engineer's view of Twin Towers



The Skyscraper Museum is making more than 500 images relating to the design and construction of the original World Trade Center in Manhattan available through its VIVA2 online archive. The photos and drawings were donated by the Twin Towers' engineer, Leslie E. Robertson Associates.

"In the absence of the buildings, they are a unique record that allows architects and engineers to study the structures in detail," says Carol Willis, the museum's founder and director. "Most of the slides were taken by Les himself over the course of construction with his special access to the site

and, obviously, with his special eye and perspective."

In addition to the World Trade Center materials, VIVA2 also presents images and drawings that relate to the Empire State Building. Willis says that the museum is now collecting materials to document development of the planned Freedom Tower, but adding them to the archive will require new funds. VIVA2 was created by a



grant from the Institute of Museum and Library Services. It can be accessed through the museum's Web site, www.skyscraper.org. J.M.

tions under construction now, they note, can be used for buildings other than the Freedom Tower.

Other projects at Ground Zero face a similarly uncertain fate. The Port Authority admitted this winter that rising labor and materials costs have caused the PATH station, designed by Santiago Calatrava,

to exceed its \$2.2 billion budget by nearly \$1.2 billion. The architect and agency are looking for ways to trim costs. This could mean a redesign, although Calatrava has said he is committed to preserving his design's signature elements. For more on this story, visit www.archrecord.construction.com. Kevin Lerner

Search begins for new Architect of Capitol

As crews push to finish the long-overdue Capitol Visitors Center project in Washington, D.C., Congress is stepping up the search for candidates for the recently vacated post of Architect of the Capitol. The position oversees construction at the Capitol, Library of Congress, and House and Senate offices. Alan Hantman, FAIA, retired February 4 after his 10-year term ended. He did not seek reappointment.

In recent years, Hantman's office came under fire from Congress for lengthy delays and cost escalation on the visitors center. When the project began in 2002, estimates suggested it could be completed by

January 2005 for \$265 million. The latest estimate projected that costs could top \$600 million, with an opening date in early 2008.

The American Institute of Architects (AIA) prepared a list of four potential candidates for the job last fall, which it then submitted to the Senate Rules Committee. The AIA has been part of the search process before, recommending both Hantman and his predecessor, George White, FAIA. President-elect Marshall E. Purnell, FAIA, who is helping with the search now, refuses to name the candidates, but he confirms that Congress has hired a search firm.

In helping with the hiring

process, the AIA has attempted to deflect congressional criticism and suggestions that the next Architect of the Capitol should have more managerial experience. "To me, that doesn't exclude architects," Purnell says. "We need a licensed, registered architect. That will guarantee a certain level of quality." He adds that the AIA considered architects with facilities management experience. Prior to his appointment, Hantman was vice president of facilities planning and architecture for Rockefeller Center in New York City.

It took more than a year to select and approve Hantman, and observers expect the current hiring process will take nearly as long. For now, deputy architect and chief

operating officer Stephen Ayers is filling the position temporarily. Ayers has worked in the office for 10 years.

Purnell says the search firm is expected to release its list of names by early summer. Three candidates eventually will be recommended to President Bush. His pick then requires Senate confirmation.

"We just hope this doesn't turn political," Purnell says. "It's a Democratic Congress and a Republican President, so you never know. We're not concerned about what party the candidate is in. We just want someone who is qualified." Bruce Buckley [This story first ran in *Engineering News Record*, RECORD's sister publication.]

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Governors Island development moves forward

It's full steam ahead for Governors Island, a 172-acre landmass located off Manhattan's southern tip that the Coast Guard turned over to New York City in 2003. Although the Governor's Island Preservation and Education Corporation (GIPEC) decided against naming a single developer for preservation and redevelopment of the island last year, the organization is pushing forward on other fronts.

Leslie Koch, president of GIPEC, says the corporation had originally been looking for developers and "whole-island" solutions, but "it became clear that none of the developers were proposing that they would assume any of the major

financial burdens for infrastructure and open space." She adds that the corporation soured on the idea of a master developer altogether.

At the same time that GIPEC announced there would be no winner of that initial RFP, it introduced a design competition for open space that is hoped will jump-start other development. The new competition asked designers to consider three components: a 25-to-40-acre park; a 2-mile waterfront promenade around the island's perimeter; and a district of historic buildings.

A Request for Qualifications generated submissions from 29 teams. GIPEC announced five finalists

earlier this year: Field Operations and WilkinsonEyre; Hargreaves Associates and Michael Maltzan; REX and Michel Desvigne; West 8, Rogers Marvel, and Diller Scofidio + Renfro; and WRT, Weiss/Manfredi, and Urban Strategies. GIPEC will unveil their submissions in a public forum this spring.

"We're choosing a team, not a design," Koch says, adding that a final plan for the public spaces will come later. "We're hopeful that between 2009 and 2010 we'll have shovels in the ground." GIPEC is also hopeful that these efforts will spark interest in further development activity. Koch observes, "Investments in extraordinary public open space is the way to bring the island back to life so that we have tenants in our historic buildings and the possibilities of partners for new construction."

One of these partners might be the New York Harbor School, a high

school that uses maritime subjects as a way to deepen education and prepare students for college and water-related careers. The school is presently located in Brooklyn's landlocked Bushwick neighborhood.

GIPEC is negotiating an agreement that would make it the island's first official tenant, in September 2009.

A feasibility study is also under way to determine the potential cost and complications of an aerial gondola system designed by Santiago Calatrava, FAIA, that would link Governors Island to Manhattan and Brooklyn. When renderings of the gondola were released last year, it was presented as a speculative project. But positive public response prompted officials to take the proposal more seriously. Koch says, "Rather than just having it float out there, we wanted to answer some questions about whether it could be built." *Tim McKeough*

Is another world's fair in New York's future?



BOORA designed pavilions housed on barges docked at the island (above two). Craig Konyk's Mile High Tower, with views as far as Philadelphia (right).

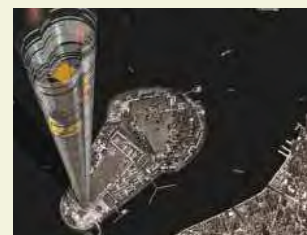
As the Governors Island Preservation and Education Corporation (GIPEC) mulls over the finalists in its competition to encourage development of this 172-acre harbor island, it may have some additional suggestions to consider. Fred Bernstein, a journalist and former lawyer, has recruited seven

architects to imagine schemes for hosting the 2020 World Expo there.

Bernstein believes that in addition to raising the island's profile, hosting an Expo would help GIPEC put into place infrastructure necessary for future development. New York City has a history of hosting these events to accomplish urban change. For the 1939–40 World's Fair, Robert

Moses transformed 1,255 acres of Queens marshland and landfill. The site hosted another fair in 1964–65, which resulted in the creation of Flushing Meadow Corona Park. World's fairs, since rebranded as Expos, continue to provide opportunities for reimagining urban spaces. Shanghai, for instance, expects to unveil its much-anticipated eco-city prototype at the 2010 Expo [RECORD, March 2007, page 162].

For the 2020 event, Bernstein suggests the theme "Connections," a reference to New York's history as a multicultural paragon. He invited young architects, as well as those old enough to remember the 1964 fair, to contribute ideas that he will use in strengthening his proposal. Chad Oppenheim and BOORA both proposed that pavilions representing different nations be situated on barges docked at the island. The Expo would begin and end with a grand procession of the pavilions through the city's waterways. Other architects referenced the iconography of past fairs. Thinking of Paris's Eiffel Tower, Craig Konyk envisioned a "Mile High Tower" with a viewing plat-



form at a height of 5,280 feet, providing 100-mile views. Ali Tayar conceived a structure that reinvents the New York State Pavilion, which Philip Johnson designed for the 1964–65 fair. Alexander Gorlin, Frederic Schwartz, and Markus Dochanstchi, of studio MDA, also contributed designs.

To build support for these ideas, Bernstein has formed a nonprofit called "21st Century New York" and is gathering a committee to lobby the mayor as well as New York's governor and congressional delegation. GIPEC has yet to comment. This is not the first time Bernstein, who occasionally writes for RECORD, has become involved in large-scale design. He also submitted a proposal to rebuild the World Trade Center. *Christopher Kieran*

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Shanghai readying for the 2010 World Expo, but important commissions remain unfilled

While Beijing's urban reinvention for the 2008 Summer Olympics is attracting plenty of attention now, similarly large-scale preparations are under way in Shanghai, China's largest city, for the 2010 World Expo. Compared to the Olympics, which lasts just a fortnight, this event will extend six months and is expected to attract 70 million visitors, according to the city's projections.

Given the Expo's theme, "Better City, Better Life," Shanghai has already started huge infrastructural upgrades, including the construction of four new underground train lines that will nearly double the capacity of its mass-transit system. Work

has also begun on a second magnetic levitation train that will connect Shanghai to the neighboring city of Hangzhou. But with the Expo looming just three years in the future, planners have yet to select the architects for several key projects, and other uncertainties remain. Politics is to blame.

Last month the city announced that the East China Architecture Design Institute will design the Expo Center, winning out over Perkins Eastman. But this news was accompanied by word that program changes will cause the 11,000-square-foot building to be split into two smaller structures. Planners

also suggested that the Chinese architect collaborate with a foreign firm on a new design.

This somewhat cryptic announcement was only the latest in a series of ambiguous decisions and false starts, played out against a backdrop of political tumult. After China's president Hu Jintao launched a widespread anticorruption crackdown last year, one of the city's chief political figures, Chen Liangyu, secretary of the Communist party, was dismissed from his post. With Chen's indictment on embezzlement charges, many large-scale private and public development projects were placed on hold until additional investigations are complete. The commission for the Expo Center was one victim of the delay;

the Expo museum is another.

Xing Tong He, director of Expo planning and research, says that although 2010 is nearing, he is not worried about the remaining architect selections. "We are a smaller operation than the Olympics. And we have time," he says.

Xing adds that Shanghai planners are seeking designs that offer long-term functionality after the Expo is finished. "We want the architecture and design to be meaningful," he explains. "We don't want it to just be ordinary. It'll be the first Expo to take place in China, and we are considering quality and sustainability." To this end, the Expo's star attraction will be Dongtan, an ecosensitive new city district that will house 80,000 people by 2020. *Andrew Yang*

Moscow may breathe new life into the crumbling Narkomfin landmark

In the mad construction dash that has consumed Moscow in recent years, one of the city's more celebrated layers of history has been left by the wayside. Numerous Constructivist structures from the 1920s have fallen victim to their original shoddy construction as well as neglect on the part of succeeding generations. Preservationists' greatest concern has centered on the Narkomfin residential complex, an experimental house-commune built between 1928 and 1930.

Last spring, a group of experts attending a conference organized by the International Council on Monuments and Sites was granted an audience with Mayor Yuri Luzhkov to make a case for taking organized action to safeguard the Modernist heritage. The meeting was a rare gesture on the part of the mayor and, according to local observers, it gave impetus to current developments around Narkomfin. In December, deputy mayor Iosif Ordzhonikidze announced plans to convert it

into Russia's first time-share hotel. Few further details have been made public, but urgent remediation may finally be under way.

Although long considered a canonical example of the Russian avant-garde, and an object of intense interest for Western architects since Le Corbusier, the building's utopian qualities have made it ill-suited for sustained use. Designed by Moisey Ginzburg and Ignaty Milinis, Narkomfin architecturally expressed new collectivized ideals: Its split-level apartments featured minimal amenities, while a separate unit for communal services was attached to the main building at one end.

Residents soon started modifying these unique living arrangements. Narkomfin's ownership has changed hands several times, and the structure increasingly fell into disrepair. Twice in recent years the World Monument Fund placed it on a list of 100 Most Endangered Sites. A skyrocketing real estate market has fueled suspicions that authorities



Largely ruined, Narkomfin is often the first stop that many visiting architects make in Moscow.

would rather let Narkomfin—superbly located just behind the American Embassy—wither away than undertake costly repairs. Without explicitly bowing to the preservationist appeals, the city's announcement is viewed as a conciliatory and constructive change of tactics.

Although Ordzhonikidze has yet to announce a time line or funding for Narkomfin's revitalization, Moscow-based developer MIAN is expected to provide the primary share of private investment. Architect Alexei Ginzburg,



the grandson of Narkomfin's chief designer, has proposed conserving the building's structural and interior components while adapting the technical elements to modern standards. His detailed proposal, which has been on public view for years, could lay the groundwork for what promises to be a multifaceted resurrection. He estimates that redevelopment will cost between \$15 million and \$20 million.

While many Narkomfin apartments have stood vacant for years, roughly half of the 50 units are still occupied despite decrepit conditions. Buying out the residents or resettling them elsewhere remains one of the key stumbling blocks to any reconstruction. Reports indicate that MIAN is approaching apartment owners with individual offers. *Paul Abelsky*

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Students aim to preserve the historic fabric of a battered Lebanese town

Bint Jbail is a small town in southern Lebanon. Labeled a Hezbollah stronghold, it was especially hard hit by Israeli air strikes during last summer's war—more than 2,500 houses were damaged and 800 completely destroyed. But when Howayda Al-Harithy, an associate professor of architecture at the American University of Beirut and a member of its postwar reconstruction unit, arrived shortly after the August 14 cease-fire, she found reason for hope.

As a preservation expert, Al-Harithy saw that much of Bint Jbail's historic fabric had survived. On returning to Beirut, she asked her third- and fourth-year students to envision ways of rebuilding and reinterpreting it. The effort sparked a larger conversation about the town's future—and might spare historic neighborhoods from new destruction.

Al-Harithy is convinced that simply razing damaged houses and replacing them with new construction and 33-foot-wide boulevards, as the city's mayor, Ali Bazzi, originally proposed, would victimize residents again through “the erasure of memory, history, and identity.” And so shortly after the war, she urged city

and Hezbollah officials to slow—and, inside the old city, halt—the removal of rubble, some of which can be used to build again. Al-Harithy also broached the subject of preservation with representatives of the Qatar Rehabilitation Program of South



Lebanon. Qatar has pledged \$300 million toward Lebanese rebuilding projects, including the reconstruction of four entire towns, among them Bint Jbail.

Local architect Haitham Bazzi was impressed by Al-Harithy's commitment. In support of her efforts, he circulated petitions urging that Qatari payments be deferred to fund



Though damaged, Bint Jbail's centuries-old urban fabric can be repaired or reused, preservationists say.

meantime, Al-Harithy's students are conducting site analysis and interviews with residents of the damaged areas—work that the American University of Beirut is incorporating into a draft master plan.

The students are also imagining an urban future for Bint Jbail that won't turn its back on a historic past. During recent crits, one young architect named Céline Stephan spoke of “stitching the city back together” with a new library and a resituated marketplace to accommodate the Thursday souk that has taken place since the Ottoman era. Other students paid close attention to preserving the footprints of centuries-old stone houses while also providing for new, Western-style apartments. *Jessica Dheere*

Israel nixes controversial Safdie project

Israel's National Planning and Building Commission has rejected a controversial mixed-use development, designed by Moshe Safdie, FAIA, that would have significantly expanded settlement along Jerusalem's western edge. Known as the “West Jerusalem Plan,” the scheme had been facing stiff opposition from environmentalists since it was first proposed more than a decade ago.

The project's developers—which include the Jerusalem Development Authority and the Israel Lands

Administration—commissioned the Safdie design for 18,700 housing units as well as commercial structures on almost 6 square miles that the city annexed in 1992. They hoped that the project would stem the drain of middle-class families from the capital, which is Israel's poorest city.

But opponents contended that the development would have produced the opposite effect—its convenient access to Tel Aviv drawing people to work and shop in that city, rather than in Jerusalem. They

also feared that the proposed road network would destroy sensitive valley landscapes, including remnants of ancient agricultural systems.

The West Jerusalem Plan remained in limbo for so long because environmentalists had to prove that city planners had other development possibilities open to them, explains Yael Eliashar, of the Society for the Protection of Nature in Israel, which led the opposition. Last November, they successfully persuaded Mayor Uri Lupoliansky to halt the project and instead promote denser and higher development in existing neighborhoods. The

denouement for the process came in February, when the national commission voted it down.

Building in Jerusalem is never easy. Earlier this year, above-ground construction finally began on a bridge at the city's entrance. Designed by Santiago Calatrava, FAIA, the project is part of a light-rail scheme due to have been completed last year, now targeted for 2009. And another significant development, the Museum of Tolerance, designed by Frank Gehry, FAIA, remains mired in legal proceedings that have delayed its construction by more than a year. *Esther Hecht*



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Competition rethinks student housing for the echo-boom generation

The class of 2009 will be the largest high school graduating class in U.S. history. If the idea of that many 18-year-olds entering into the world makes you nervous, imagine how university housing officials feel.

Demand for campus housing is expected to keep growing as echo boomers, offspring of the baby-boom generation, make their way through the educational system. To help meet this challenge, the Association of College and University Housing Officials International has initiated a three-stage competition called the 21st Century Project to design and eventually build a "state-of-the-art residential facility" prototype.

The competition's first stage, which concluded this winter, was to design a model room, or "student

living unit," as it will appear 25 years in the future. The room must accommodate a range of different sleeping arrangements and provide for advances in technology and sustainability. From a total of 46 entries, Boston-based Jonathan Levi Architects edged out seven finalists for the \$25,000 top prize.

Levi's living unit features a media wall, movable storage units, and Murphy beds. A glass wall that changes from transparent to translucent encloses the bathroom, which includes a custom-designed toilet and sink. "Their design brought a lot of new ideas to bear while remaining realistic and buildable," says competition juror C.C. Sullivan.

For his part, Levi attributed the design's buildable quality to his

firm's recent experience designing a graduate housing facility for Harvard University, in Cambridge, Massachusetts. "The word *speculation* has been abused in architecture culture—it's come to mean wild form-making—but for us, speculation is intimately tied to building," he observes.

When it comes to building, Levi's 21st Century Project entry is composed of modular components that allow for rapid assembly. Modular construction has the added benefit of creating excellent sound barriers due to double-layered walls, floors, and ceilings. "A sense of isolation is necessary for scholarship. We wanted to give students the option of silence," Levi observes.

The second phase of the 21st

Century Project competition, which will start in July, asks entrants to build upon Levi's design, extrapolating it to the scale of a building and emphasizing communal aspects of residential living. A third phase will identify a site for a prototype building, asking entrants to relate the dormitory to a broader campus community.

"Student living space can be a marketing tool for universities," says Michael Coakley, the competition coordinator, "but how those spaces come together contributes to students' ability to succeed once they are enrolled and shapes how they relate to the campus community."

The seven other finalists in the first phase of the competition were American Campus Communities with WDG Architecture of Austin; Angelini and Associates; Bergmeyer Associates; CSO Schenkel Shultz; Marks Thomas Architects; RATIO Architects with KI; and Southern Illinois University Edwardsville with Mackey Mitchell Associates.

Alan G. Brake



New Orleans gets affordable, greener housing

Talk to Chris Goad, a senior architect with Wayne Troyer Architect in New Orleans, and you begin to envision a future for this storm-battered city that includes electricity generating wind turbines sprouting from the rooftops of former factory buildings. David Miller, a real estate developer, has a slightly different but equally compelling and sustainable future in mind, one that integrates affordable housing throughout all of the city's neighborhoods.

The future may not be as far off as it seems. Working with developer Sean Cummings, Goad's office is converting a derelict mill into the Rice Mill Lofts, an apartment and retail complex that aims to become the first LEED Platinum-certified mixed-use project in Louisiana. And Miller, a vice president of the Renaissance Property Group, is redeveloping the abandoned Falstaff Brewery into mixed-income apartments. While the conversion of aging industrial buildings for residential

use is nothing new in New Orleans, these projects suggest new directions for the city and its architecture.

Located in the city's historic Bywater neighborhood, the Rice Mill Lofts will contain 50 residential units as well as ground-floor retail shops.



With green features such as a 127-foot-tall wind turbine—whose form evokes a smokestack—photovoltaic arrays, and rainwater reclamation, it is eligible for the highest LEED rating and has already earned a merit award from the American Institute of Architects' New Orleans Chapter [RECORD, March 2006, page 36]. Despite its green features, though, Goad believes the project is easy to replicate. "We really didn't have to do



Housing will occupy an old brewery (above) and a mill (left). On the mill's roof, a wind turbine will supply power.

a lot to renovate this old mill building into apartments," he says. "I believe there's lots of opportunity in New Orleans to do this kind of project."

Across town, in the Mid-City area, David Miller also sees untapped potential that could stem from his own redevelopment scheme. Renaissance is taking a 204,000-square-foot former beer brewery and converting it into 149 apartments, half of which are set

aside for people making less than the city's median income. "Projects like Falstaff could be hugely positive for redevelopment. I believe it will serve as a catalyst for the area," he says.

The Falstaff building has been a landmark since 1912—its neon sign, some 13 stories high, is visible throughout the city—but it sat vacant for nearly three decades in a neighborhood now filled with bail-bond offices and convenience stores. HMS Architects, with associate architect Webster Design, chose to retain the existing structure, preserving as much of its character as possible. Keith Steger, of HMS, explains that this move allowed for the creation of living units with large window bays and high ceilings—a boon to future residents.

The Falstaff Brewery should be ready for occupancy by the end of this year, while construction on the Rice Mill Lofts is expected to finish in the summer of 2008. For a city in desperate need of new housing, these dates can't come soon enough. Matt Suplee



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COMMERCIAL

In D.C., the climate shifts for tackling climate change

In the absence of concerted federal leadership, cities and states have been taking the lead in addressing the issue of climate change. But now, with the help of the American Institute of Architects (AIA), the federal government is finally stepping up to the plate.

The day after his State of the Union speech in January, President Bush signed Executive Order 13423, which mandates green building targets for all executive branch agencies. Topping a long list of goals, it calls for a 3 percent annual reduction in energy intensity, defined as energy consumption per square foot of building space, and increased use of on-site renewable energy.

Why the recent change in attitude? "There's been a growing understanding in the government and executive branch that dependence on for-

make sure that funding exists," Stewart explains.

The AIA is proposing an immediate 50 percent reduction in fossil fuel use, with further reductions every five years until 2030, by which time new federal buildings would be carbon neutral. These numbers coincide with those proposed by the 2030 Challenge, which the U.S. Conference of Mayors adopted last year for municipal buildings [RECORD, August 2006, page 30].

A surprise to some observers, neither the AIA's recommendations nor the executive order require that federal buildings seek LEED certification, which is commonly required by state and local governments. The executive order mandates that new construction and major renovations of agency buildings comply with the *Guiding Principles for Federal Leadership in*

"PEOPLE AGREE THAT SOMETHING IS HAPPENING—AND, MOST IMPORTANT, THEY FEEL THAT THEY CAN DO SOMETHING ABOUT IT," SAYS R.K. STEWART, FAIA.

oil is something that we need to grapple with," observes Kevin Kampschroer, director of research and expert services for the Public Buildings Service in the General Services Administration (GSA).

Following the executive order, the GSA raised the energy intensity targets listed in its contract language. Although the agency, which is the nation's largest public landlord, previously required that its own new construction be LEED certified, it also now states a preference for leasing space in buildings constructed in a more sustainable way.

Other possible changes affecting federal space requirements are afoot on Capitol Hill. In February, AIA president R.K. Stewart, FAIA, appeared before Congress to present the group's recommendations on energy efficiency in federal buildings.

Stewart emphasized the critical role that the built environment plays in climate change, noting that buildings produce nearly half of the greenhouse gas emissions that contribute to global warming. "You can argue about the way to change, but architecture is the biggest contributor, so the opportunity to change is there," he explains.

Like Executive Order 13423, the AIA's recommendations specifically address federal buildings—but they take a slightly different tack by going directly to Congress. "It has the ability to

High Performance and Sustainable Buildings. Signed by 19 federal agencies, these principles establish broad goals that cover many of the same areas as LEED but place greater emphasis on encouraging sustainable practices in ongoing building operations.

The GSA believes that it needs to address more specific operational issues that the LEED systems do not. "Building the building is merely the first step in its life. If you don't take care of the building, you've lost an opportunity," Kampschroer explains.

For its part, the AIA feels that endorsing a single standard would work against its attempts to further the development of all standards. "No standard that exists today addresses these issues in as all-encompassing a way as we, as a profession, think that they need to be addressed," Stewart says.

The AIA is already pursuing the next step with its recommendations by seeking a congressional sponsor to draft legislation that can be attached to a larger bill addressing energy use or climate change.

The critical aspect of the steady stream of action in Washington, Stewart says, is that it signifies a sense of empowerment. "Before, there was debate about whether or not something was happening. Now, people agree that something is happening—and, most important, they feel that they can do something about it." *Amanda Webb*



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Two new Web sites help architecture go open source

At the annual invitation-only Technology Entertainment Design Conference last month, Architecture for Humanity founder Cameron Sinclair took center stage to launch the Open Architecture Prize. Its \$250,000 purse, among the largest offered for architecture, will be awarded to the best design for a computer lab that will be built as part of the 50x15 Initiative. This effort, led by chip maker Advanced Micro Devices, aims to provide Internet access to half the world's population by 2015.

Sinclair's announcement came just one day after he inaugurated another project with a similarly global reach: the Open Architecture Network, an open-source online space where architects and engineers can share their ideas with organizations and community leaders that are seeking design solutions for coping with the aftermath of natural disasters and political conflict. In addition to forging connections between socially responsible designers and worthy clients, the network allows creative colleagues to comment on one another's ideas, along the

lines of Web sites such as Wikipedia.

Architecture for Humanity is not alone in adapting Wiki culture to the architecture profession. Another project in the works is the Public Information Exchange (PIE), a digital interface that Local Projects, a design studio in New York City, is developing for the Center for Architecture, home to the American Institute of Architect's New York Chapter.

Comparing the two efforts, Local Projects principal Jake Barton says that whereas participants in the Open Architecture Network "are really looking to share how these things are built, and to facilitate working teams across the world," PIE will solicit feedback from design professionals and community members about new buildings in development throughout greater New York. "It's about architects communicating with all stakeholders," he explains.

A beta version of PIE launches this month at www.publicinformationexchange.org, with the final version set to go live later this year. A beta version of Architecture for Humanity's vision is already live at; the Open Architecture Prize competition will be managed through this site.

David Sokol

Commercial billings show unexpected strength in early 2007

Continuing a trend first evident late last year, architecture firms reported a healthy volume of billings for commercial projects in January 2007, according to the American Institute of Architect's monthly Architectural Billings Index (ABI). And, for the first time since last fall, inquiries made to architecture firms also rose.

The AIA's chief economist, Kermit Baker, Hon. AIA, initially attributed this activity to warmer winter weather throughout much of the country

prompting clients to get an early start on projects. But he now wonders if the trend instead signals an improving business climate.

"The first half of January was warm, but the second half we had a full-blown winter, and yet we continued to see an upturn in design activity," Baker says. "That leads us to believe that something structural might be going on, not just weather-related activity. We'll be looking at the February numbers carefully."

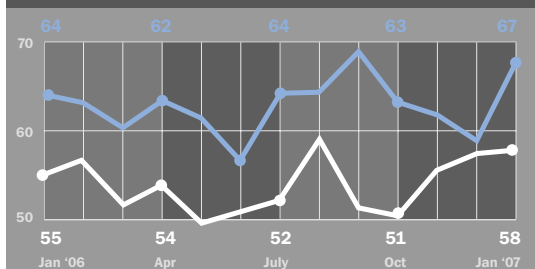
Although commercial activity remained strong, Baker continues, residential design billings indicate the housing market has yet to recover from its collapse last year. "Single-family work has been in a major recession, and multifamily work has been down for the past six months or so, too."

Data that makes up the ABI is gathered from a survey sent to 300 firm leaders primarily in the commercial design sector. Studies have shown that the index is a good predictor for construction spending nine to 12 months in the future. J.M.

Billings Remain Strong to Start 2007

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News Briefs

Arquitectonica's Columbia Memorial Space Learning Center will break ground

this spring. Located in Downey, California, the 18,000-square-foot museum honors the seven-member crew of the Columbia Space Shuttle, who perished when the shuttle disintegrated on



reentry in 2003. "The center will look like it is taking off toward the sky," says Bernardo Fort-Brescia, a principal of the Miami-based firm. Fiber-optic lighting incorporated into metal panels within the facade will simulate constellations of stars. *Jennifer LeClaire*

Thomas Galloway, dean of the College of Architecture at Georgia Tech, died last

month at the age of 67. During his 15 years at Georgia, Galloway was credited with raising the school's stature both in the U.S. and abroad, forming partnerships with institutions in France and the United Arab Emirates. Before joining the university, he served as dean and professor of the College of Design at Iowa State University, from 1985 to 1992. He also taught and held administrative positions at the University of Rhode Island and the University of Kansas. *J.M.*

Adalberto Libera's Cinema Airone will be transformed

into a public archive for the Oscar-winning composer Ennio Morricone. The derelict theater in suburban Rome was built in 1953 as a tribute to Italy's film industry. Its bloblike volumes, very much in vogue now, were a playful departure for the Italian Rationalist known for his Palace of Congresses, in Rome's EUR district. Bluostudio and Nema Architecture, both locally based, are designing the Airone renovations. In addition to Morricone's archives, the project will also include an acting school. Construction is expected to finish in 2009. *Susan H. Gordon*

Robert A.M. Stern has designed a new building for the Museum for African Art,

to be located on Fifth Avenue in New York City. When the 93,000-square-foot institution opens in 2009, it will be the first all-new museum located on the city's famed "Museum Mile" since the



Guggenheim opened in 1959. The museum is partnering with developers that will construct 116 housing units above the building. "It's a whole new ball game: museums that function as cultural centers for the community," Stern says. "We hope it engages the public." *C.J. Hughes*

The Parrish Art Museum has asked Herzog and de Meuron to rethink

its expensive new building in Southampton, New York. The museum originally sought an 80,000-square-foot facility; plans now call for 63,000 square feet to be built in two phases. It will be the Swiss design duo's fourth U.S. museum. Parrish director Trudy Kramer, who announced her retirement last month,



says that the concept remains unchanged. Inspired by 19th-century artist colonies, the architects envisioned a series of separate pavilions housing small galleries. The first phase, expected to cost \$55-60 million, will break ground in 2009. *J.M.*

ENDNOTES

- Denise Scott Brown received the 2007 Vilcek Foundation Prize. It honors foreign-born individuals for contributions to American society.
- The Barnes Foundation issued a Request for Qualifications to select an architect to design its new museum in Philadelphia.
- Rem Koolhaas is working on a 52-story "vertical city" for a waterfront site in Jersey City, New Jersey. The tower will contain condos and art studios.
- Plant Architect and Shore Tilbe Irwin were selected to redesign Nathan Phillips Square, which fronts Viljo Revell's Toronto City Hall.
- France and Abu Dhabi inked a controversial \$1.3 billion deal to bring the Louvre's name and art to a Jean Nouvel-designed museum on Saadiyat Island.

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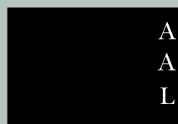




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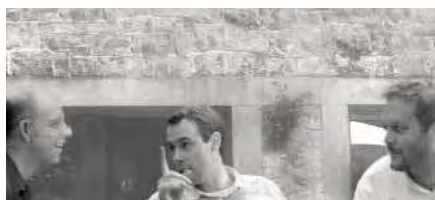
archrecord2

DEPARTMENTS

Putting ideas into action can be daunting when you're creating a business. We found two firms that just went for it and are finding how rewarding taking the risk can be. Pique's three principals keep their vision alive from three different locations, using technology to bridge the physical gaps. For British industrial designers Will Crawford and Peter Brewin, it was following through on an idea for a temporary concrete canvas shelter that gave their business legs. Go to archrecord.construction.com/archrecord2 to learn about other talented, risk-taking designers in **Design, Work, and Live**, and join the conversation in our forums in **Talk**.

Design

Pique: Three architects, one vision



When architect Peter Jahnke (center in photo) says that he has to stare at Eric Meglasson (left in photo), his partner and coprincipal of architecture firm Pique, all day,

he means it, but not in the way you might think. Peter, Eric, and the firm's third coprincipal, Keith Ballantyne (right in photo), live and work in different parts of the world, but together share one practice. "I boot Eric up first thing in the morning and we're together all day," says Jahnke of his Webcam connection with Meglasson, "and I see Keith almost every day, as well." Physically, the three aren't actually within spitting distance very much—Jahnke's home studio is in Seattle; Meglasson's in Bend, Oregon; and Ballantyne lives and works just outside of Edinburgh, Scotland. Still, the three have had an active architectural partnership since 2005.

According to Jahnke, while each partner is a skillful designer, they also bring their own special talents to the mix—Jahnke is the instigator, marketer, and pursuer of competitions; Meglasson, the practical doer who loves to be out in the field managing projects and getting things built; and Ballantyne is commentator, critic, and self-admitted minority shareholder in the group. "I'd like to change that balance one day," says Ballantyne, who also teaches at the University of Edinburgh, "but for now I'm the one they turn to to push them and to be critical about the work."

All three hold architecture degrees from Montana State University, but while the university may be the thread that links them together, it is their distance from one another that they believe has strengthened their link and given their practice an edge. The partners' physical distance gives them an objective platform from which to consider each project from all angles—client, location,



National Library of the Czech Republic, Prague, Czech Republic, unbuilt

A competition entry for a 500,000-square-foot library that would incorporate offices and storage of archived collections with general reference materials. The building would include a restaurant and lecture hall.



Viewmaster 2005, Bend, Oregon, unbuilt

Taking cues from a child's toy, the Viewmaster, this home becomes an instrument that gives limits to views with two open lofts, or "lenses," acoustically and experientially separated by an atrium.



materials, budget, and program. There's also a global perspective that comes with the geographical freedom. "We all travel extensively, and I have land in Belgium, where I hope eventually to end up," says Jahnke, whose wife is Belgian. "Creating a business like ours means I could easily do that."

The partners currently have several residences under construction in Bend, and they are looking at commercial interiors projects, as well. They constantly submit designs to competitions worldwide, an exercise they say keeps them exploring and experimenting. According to Jahnke, the potential is limitless. "There is an enormous amount of development out there, and much of it bad," he says. "We know there are people who are looking for something better." Dividing up to find those special clients is working for Pique. *Ingrid Spencer*

Tumalo House, Tumalo, Oregon, 2008

A narrow home stacked to express the experience of ascending from the scale of trees to the expansive sky. The second and third floors appear to float.



Garren Residence, Bend, Oregon, 2007

This low-slung residence rests on a prairie site in the high desert of central Oregon. The strong horizontal elements visually tie the building to the surrounding landscape. Three parallel axis walls orient the house toward prominent views and define outdoor rooms, expanding the small footprint out into the site. The steel-clad spine wall separates private and public portions of the dwelling, above grade and below. A large central void delivers natural light to basement rooms.

For more photos and projects by Pique, go to
archrecord.construction.com/archrecord2/.

Work

Idea becomes business for two British designers

Experimenting with concrete in school paved the way for British industrial designers Will Crawford and Peter Brewin to enter the business of helping disaster relief workers. The two entrepreneurs are the brains behind Concrete Canvas Technologies, a new company that is marketing inflatable concrete tents to aid organizations as well as the U.S. and U.K. military.



Concrete Canvas: Add water, use a battery-powered fan to inflate, and wait 12 hours.

Crawford and Brewin met three years ago in an industrial design and engineering class at the Royal College of Art in London, where they were pursuing master's degrees. Inspired by the sophistication of an egg, the two explored the use of inflation to create forms that were structurally sound yet lightweight by blowing up balloons filled with plaster. They decided to use inflation to create forms, and found concrete to be an easily compressible material. "There are two basic aspects to the design—cement-impregnated cloth and the use of inflation," says Crawford.

To erect the tent, you add water to the bag and inflate it with air, and 12 hours later it is ready to use. The two students entered their idea in the British Cement Association's annual competition in 2004 for new and innovative uses of concrete, and they won second prize.

During summer vacation, they traveled to Uganda to do field tests.



They spent a month meeting U.N. agencies and nongovernmental organizations and visited six different refugee camps where they tested the idea. They were met with a positive response from aid agencies, who have long needed a way to quickly erect shelters on demand.

After graduation in August 2005, Crawford and Brewin started the company with their prize money, and secured their first round of financing from private investors in April 2006, as well as through a grant from the British government. With the idea that a free trial will lead to sales, the firm has handed out prototype tents to clients like the U.K. and U.S. military and the Red Cross.

With the durability of a portable building and the ease-of-use of a tent, the structures have an estimated life span of five to 10 years, which outlives the normal wear of a tent, while remaining logistically easier and cheaper to manage than prefabricated portable buildings. While cost has yet to be determined—based on further prototype testing—Crawford says he and Brewin plan to take the product to the commercial marketplace, as shelters for sheds and agristorage, or to sell the concrete cloth in rolls to builders for instant hard pouring. *Dianna Dilworth*

For more information on Concrete Canvas and more pictures of the structure in action, go to archrecord.construction.com/archrecord2/.

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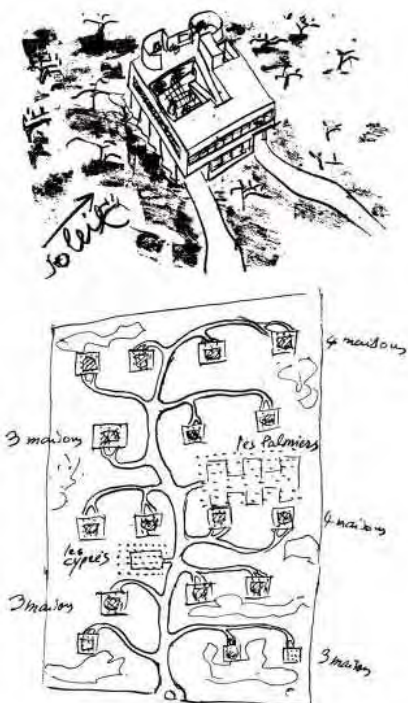
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Does size matter when it comes to design offices and quality?

Critique

By Alexander Gorlin, FAIA

DEPARTMENTS



Le Corbusier's sketch for Villa Savoie (top), projected as a development (bottom) 1930.

and although it would come out only every few years with a limited number of projects, every one was marked by an extraordinary level of originality and power: the Villa Savoie, La Tourette, Ronchamp, Maisons Jaoul, the High Court and Assembly at Chandigarh, the Carpenter Center.

Never did more than 15 people work at his office at 35 rue de Sevres, in Paris. Similarly, Louis Kahn never had more than 20 architects at his office in Philadelphia. Of the 40 desks at each of Frank Lloyd Wright's Taliesin studios (East and West), only 20 were ever occupied. At the most, James Stirling's staff was around 25. And, of course, Carlo Scarpa worked with maybe 6 people in his own home office in Vicenza, Italy.

But that was then, and this is now, a time when the world is awash with money, new clients are everywhere, and architects are called upon to build in every corner of the globe as fast as possible, today if not yesterday. With Blackberries, cell phones, wireless computers, and faxes, one is expected to create and produce buildings at an unprecedented scale and rate. And this at a time, at least in the media, when architecture's stock has risen to historic highs. Back when Le Corbusier was working in India and Louis Kahn in Bangladesh (then Pakistan), these locales were considered remote and

exotically quaint. Today, construction has exploded in China, Singapore, the Philippines, Thailand, and Dubai.

So what is wrong with this picture? In the 1970s and early '80s, when there was little work, every Michael Graves yellow trace sketch was the talk of the town. Now there is not only a cornucopia of projects, but a lot of architects' wildest fantasies are actually being built in places like Shanghai and Dubai.

Isn't this what every architect wants—larger projects, bigger offices, and fatter budgets? Yes, but ... A large office is not only a blessing, but also a curse. There is the inevitable loss of control—"many a slip betwixt cup and lip"—as directions from the design partner to subordinates, and then through construction drawings to the contractor, are lost or mistranslated. And, as we know, it is almost impossible to construct even the simplest things correctly. In an office, everyone has a personality, attitude, and ego, especially in a field rife with prima donnas. You must be really "hot" to get a job at Zaha's! Architecture often winds up being more about managing people than design. As Bill Pedersen of Kohn Pedersen Fox told me after I proudly informed him I had hired my first employee, "Now the trouble begins."

So how is it possible for architects who have arrived at the pinnacle of their profession and are known for the intensity of their design and their obsession to detail to expand successfully to a size that rivals the large corporate firms? Can one have an atelier of 200 people working at the same level of origi-

nality and care as one of 20? There is a clear and present danger that too much work will dilute the production of even the best firms.

History is strewn with the wreckage of bloated offices' late work, such as any of Ed Barnes's or Ulrich Franzen's faceless towers. And can anyone forgive Walter Gropius his horrendous Pan Am Building?

Both Frank Gehry and Zaha Hadid now have offices with more than 200 people. Not only do they have numerous projects of gigantic scale, but the distance between projects requires the architects to spend a great deal of time on planes. Is it possible to maintain the quality of design at this size and with projects flung across the world? Is there a danger of repeating oneself when clients demand a "Gehry" or "Zaha" for their city or museum? Does it matter?

On the opposite end of the spectrum is Glenn Murcutt, who works alone and refuses to take projects outside of Australia, as he believes one can only build where one completely understands the site. This extreme position—the architect as a kind of local tribal shaman—does not make enormous sense with the realities of global communications (actually since the invention of the telephone), but it does raise the issue of how to build appropriately in different locations, climates, and cultures. This has been a problem of Modernism since Philip Johnson and Henry-Russell Hitchcock's 1932 MoMA exhibition declared there was one International Style suitable for all locations. This long-discredited

Once upon a time, Le Corbusier sat in his single-room office alone, pencil in hand, solemnly pondering an architectural problem, "face to face with himself, the wrestling of Jacob and the Angel within the human soul," as he explained in volume eight of *Oeuvres Complètes*. About one project he wrote, "This took a long time to develop, the design worked upon and caressed in days of perfect calm." His famous dictum was "creation is a patient search." Each new edition of the *Oeuvres Complètes* was eagerly anticipated,

Alexander Gorlin, FAIA, heads Alexander Gorlin Architects in New York and is the author of *Creating the New American Townhouse* (Rizzoli).

notion, oddly enough, is being raised again through the multiple commissions of boutique architects asked to repeat their "signature" projects regardless of the site. Do Richard Meier's glass towers on the Hudson in New York make sense near Miami in even more Minimal garb?

Both Le Corbusier and Mies van der Rohe walked the fine line between innovation and repetition, but did so within the context of solving a problem in an architectural typology. One of the answers to housing for Le Corbusier was the slab of the Marseilles block, where duplex apartments were stacked within a structural frame, the whole building was raised off the ground on pilotis, and a terrace occupied the roof. He repeated versions of this scheme in Berlin and Briey-le-Forêt, and proposed them in all of his urban plans. Were they all as well done as Marseilles? Perhaps not, but they were to be seen together as a laboratory of investigation, refining an answer to a clearly stated problem. The same goes for Mies, in his series of corporate office buildings: Seagram in New York City, IBM and the Federal Center in Chicago, and Westmount Square in Montreal. Mies developed a language that for him was an expression of the "zeitgeist," the spirit of the age, and therefore needed no excuse for "originality." Refinement was the goal; each was as subtly different as one Greek temple was from another. For myself, Seagram trumps them all, but that was not the point.

Today, it's different for architects such as Gehry, whose late work has been compared to sculpture and who has been called the Michelangelo of his age. Such comparisons imply that he alone is the final arbiter of each curve and arc. His late work recalls James Stirling's calling Ronchamp "a masterpiece of a unique and most personal order." As opposed to Mies's right-angled vocabulary of construction, which

created a school of followers, Gehry's work even now is untouchable in its hermetic formulas, however open and approachable it is for the public.

After the enormous success of the Guggenheim in Bilbao, Gehry produced Disney Concert Hall, in Los Angeles, the Corcoran Gallery of Art, in Washington, D.C., and the Guggenheim New York, all variations on a theme. What if, after Ronchamp, churches all wanted similar solutions? Of course, Le Corbusier himself extended the vocabulary of Ronchamp in his church at Firminy, France, and at Chandigarh. Since

HAS GEHRY DISCOVERED THE "MAGIC TRICK" OF MAINTAINING A HIGH LEVEL OF DESIGN WITHIN A LARGE OFFICE?

Bilbao, has Gehry been mining a similarly rich vein of form?

The problem is that when architecture is presented as fine art and sculpture, then each project is considered unique, and not as an answer to the problem of how to make a blockbuster form to embody the aspiration of a place such as Bilbao. This ultimately works against the desire to explore the same themes within a typology, as the variations invariably question and vitiate the uniqueness of the initial object. Uniqueness is an essential part of the aura of the object, as expressed in Walter Benjamin's *The Work of Art in the Age of Mechanical Reproduction*. Benjamin notes that film, which he considers to have less aura than the authentic object, "responds to the shriveling of the aura with an artificial build-up of the 'personality' outside the studio. The cult of the movie star ... preserves not the unique aura of the person, but the 'spell of the personality,' the phony spell of a commodity." The same thing seems to be happening with brand-name architects today. As demand has risen for this group and repetition in their work has increased, the "starchitect" phe-

nomenon has accompanied the "shrunken aura" of the subsequent architectural projects.

Of course, it is unrealistic to expect every new project by Gehry to be a masterpiece; even he admits that. But what can he pull off at the 8.7-million-square-foot Atlantic Yards mega-project in dear old Brooklyn, New York, which at the moment looks more like Co-op City with a bad case of the shingles?

At another level, the problem stems from the incorrect application of the "artist" model to the architect by the media. Even Le Corbusier carefully maintained a distinction between his painting, sculpture, and architecture. Rather than Jackson Pollock or Rembrandt, two solo artists, it is Peter Paul Rubens and

his atelier that are a more accurate model for architecture. Rubens had a large workshop with many assistants. He started his paintings with an oil sketch, which was often enlarged and worked on by assistants under his supervision, and then he applied finishing "highlights" to the canvas. More recently, Andy Warhol's Factory was legendary as the place where he created his work, never alone at any time of the day or night.

Warhol is germane to the concept of repetition versus originality, as is Giorgio de Chirico, who literally copied his own early canvases late in his career. Warhol admired this direction and even copied de Chirico's copies! Perhaps it's time to admit it's okay to copy; in fact, it's a good idea! Even Le Corbusier proposed copying the Villa Savoie for a development in Argentina, noting, "This same house, I should set it down in a corner of the beautiful Argentine countryside: We shall have 20 houses rising from the high grass of an orchard where cows continue to graze." *Plus ça change!*

Gehry should be grateful that at the tender age of 78, he is still pumping out excellent work—without a doubt the effect of architectural

Viagra. Perhaps he has indeed discovered the "magic trick" of maintaining a high level of design within a large office, as he told me recently. (So why aren't the SOMs of the world doing the same?)

Regarding Zaha, as far as I can see, the jury is still out. As opposed to Gehry, who emerged after years of building fairly undistinguished commercial structures, she spent a long time hand painting visions of flight and lightness and has not built much. What has been built is very different from her initial drawings. In Germany, at Vitra, her concrete fire station is choked with rebars; at Wolfsburg and BMW, there was a realization that a new direction was necessary, and we see Deco-like continuous concrete curves, a fluid Brutalism—or is that brutal fluidism? Two hundred people working for her? Seems out of control, but we must wait and see what she builds next.

Richard Meier, with 65 employees in New York and 25 in Los Angeles, never had a problem repeating himself and never presented each project as distinctly unique. From the beginning, the success of his early houses established a vocabulary of Corbusian-derived formal strategies and a restrained white palette that he rarely veered from. This single-minded commitment to a specific "style" with rules and limitations was teachable to people in the office, allowing it to grow. So strict was his early formal system that when I worked as an intern there years ago, it was the news of the day when he used a curve in the Schomburg Pavilion! Very slowly, his all-white vocabulary broadened to include gray. And now he has actually used dark wood in a house in Malibu.

So what is one to do? Since architectural immortality may be fairly limited in the near future, with global warming and the apocalypse happening sooner rather than later, why not *carpe diem* (seize the day) and take on another hundred staffers? Or should Gehry and Hadid follow Nancy Reagan's dictum and just say no to the lure and addiction of more work and bigger offices? ■



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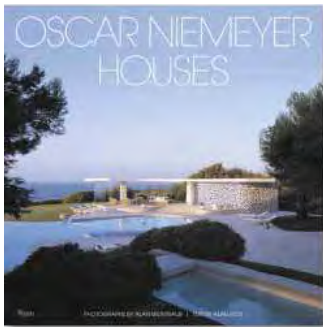
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Books



Oscar Niemeyer Houses, by Alan Hess, with photography by Alan Weintraub. New York: Rizzoli, 2006, 231 pages, \$65.

Although identified largely with monumental civic creations such as iconic government buildings in Brasilia, Oscar Niemeyer has inconspicuously worked on house designs for seven decades. This book, the first on his houses, presents a convincing case for residences as central to his oeuvre. The allure of the houses in this finely honed survey reveals how far Niemeyer has evolved from a young follower of Le Corbusier's vision of houses as "machines for living" to an original creator of houses as sensual structures for living close to nature.

Niemeyer, who is 99 years old, prefaces Alan Hess's text and Alan Weintraub's photographs with a clear overview of his residential style: "I am attracted to free-flowing, sensual curves. The curves that I find in the mountains of my country, in the sinuousness of its rivers, in the waves of the ocean, and on the body of the beloved woman." He has translated this romantic vision into

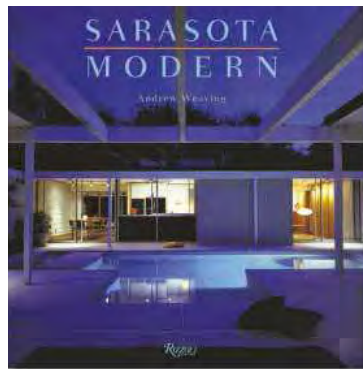
residences showcasing bending, dynamically slanting, and often biomorphic concrete forms. Niemeyer's love of curves surfaced in his first house design for himself, completed in 1953 in Rio, topped by a curvilinear roof conjuring a seemingly weightless, floating lily pad. His next house for himself, built in Brasilia in 1960, brought feminine curves to the design of a shapely swimming pool, an ironic counterpoint to his *fazenda*-style residence adjoining the pool. The *fazenda* was a typical 19th-century coffee-plantation-owner's house on an estate maintained by slaves. Niemeyer's reformulation of it serves as a symbolic act, trying to redeem Brazil's slave past while also showing how Modernism can embrace vernacular forms.

Hess's commentary offers just enough historical and cultural background to enhance our appreciation for these residences. Weintraub's 200 sharply detailed, atmospheric photographs do justice to the tropical sensuality of Niemeyer's designs. Together, they create an experience akin to being graciously welcomed as an honored guest in Niemeyer's houses. *Norman Weinstein*

Sarasota Modern, by Andrew Weaving. New York: Rizzoli, 2006, 207 pages, \$50.

Sarasota Modern pays homage to a remarkable moment in the early 1950s when a "confluence of talented and daring architects coupled

with a hip crowd willing to take risks" made the west coast of Florida a center of avant-garde design. The work of Ralph Twitchell, Victor Lundy, and particularly Paul Rudolph formed the Sarasota School, which historian Henry-Russell Hitchcock in 1952 called "the most exciting new



architecture in the world."

Sarasota was a somewhat unlikely spot, yet its barrier islands and subtropical climate made it an ideal laboratory for a Modernism that was both elegant and environmentally intelligent. After Rudolph and Lundy moved elsewhere, a new generation of architects came to Siesta Key and Lido Shores to build more flat-roofed, concrete, and cedar houses with central courtyards and cross ventilation, and filled them with Bertoia, Eames, and Neutra furniture.

Splendid as these pure examples of Gropius-in-a-warm-climate were, many are modest second homes occupying prime real estate. The Sarasota School patrimony is threatened by nature, changes in taste, and greed. Author Andrew

Weaving, a Modern dealer in London, bought two examples of the style: a Gene Leedy house in Winter Haven and a Mark Hampton in Lakeland. The book is his plea for a renewed appreciation of Sarasota style and its preservation.

Weaving provides a historical overview of the movement and its main protagonists, plus essays on 18 key houses. While these include two recent entries by Toshiko Mori, most are from the golden age, providing the reader with a sentimental stroll back to the 1950s. These prime examples are often restorations by aficionados who have furnished their houses with George Nelson clocks, Saarinen womb chairs, and abstract paintings.

Sarasota Modern is a welcome tribute to that vibrant Florida moment. It is, however, marred by sloppy editing (good grammar and punctuation do matter), and needless errors (the Farnsworth Museum is in Maine, not in Massachusetts; *piloti* is not a plural noun, and so on). The designer of the book, too, might have taken some lessons from the straightforward design of the houses. *William Morgan*

Tom Kundig: Houses, edited by Dung Ngo. New York: Princeton Architectural Press, 2006, 176 pages, \$40.

A cold and sleepless night spent bivouacking on a mountain face left a 20-year-old Tom Kundig with a visceral experience that has continued to shape his architecture. Opening his preface with this defining mem-



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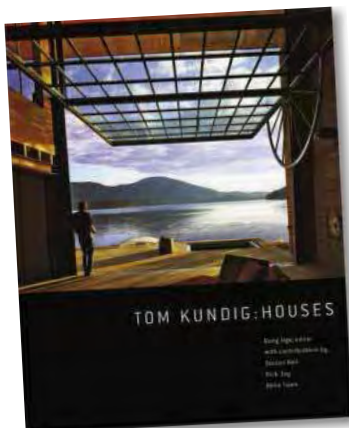
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Books

ory, Kundig indirectly implies a link between the experience and its lasting influence on his work, concluding that "architecture became less of a career and more of a learning pathway." Now a partner in the Seattle-based firm Olson Sundberg Kundig Allen Architects, Kundig's signature contraptions, like a hand crank that enables even a child to pivot a six-ton steel-and-glass picture window at Chicken Point Cabin in Northern Idaho, have enchanted clients, magazines, museums, and award panels for more than a decade. The five residences in this monograph were chosen to reflect Kundig's mountaineering aesthetic through such idiosyncratic design details, which he refers to as "gizmos."

Dung Ngo, the book's editor, believes that the true significance of Kundig's experimental mechanisms is a refreshing and underappreciated



reappropriation of engineering into architecture. Pages of sketches, occasionally as simple as scribbles on ruled paper, provide intriguing glimpses into the development of some intricate contraptions and fetishlike details, for example the glass marbles used to plug holes left from the concrete framework at the Brain Studio in Seattle. But if

the aim was to focus on gizmos and, as Ngo puts it, "the desire to incorporate another vocabulary, another language of making into the rigid codes of today's architectural construction," then the reader is left desiring a more substantial explanation of this other language. Magnified drawings of gear systems accompanied by scant text are less than satisfying.

Kundig's details inspire a child-like curiosity that begs people to take his work apart and learn how it operates. This book is only superficially successful at satisfying that desire. Ngo is right: There is something creative and novel here. But the book is stuffed with images, some of which are redundant. We can look at a house from half a dozen angles or more—but a mere single-sentence caption won't really get us inside of it. One senses that the pictures were intended to fill space, which is odd since so many Kundig houses are omitted. The residences here are mostly those that have garnered the greatest

number of awards, which makes the publication initially seem like an overzealous publicity pamphlet. But the book is smartly arranged to guide the reader's experience of the gizmos. The buildings appear in order of the increasing complexity, prominence, or abundance of the imaginative devices in each, culminating in the house Kundig hot-rodged for himself and his wife in Seattle. By the time this house appears, the reader's eye has been trained to fasten onto the myriad miniature design moments in a house that might otherwise appear stark in contrast to the preceeding four. It is difficult not to be captured by the obsessive minutia and mechanistic moments in these houses.

Ngo says of Kundig's gizmos that they bring life to static architectural elements. They connect people with architecture, and in some cases, connect architecture with nature. They are fascinating, but dangerously so. Drawing perspective away from the whole, they can appear overwrought. A massive steel-beam

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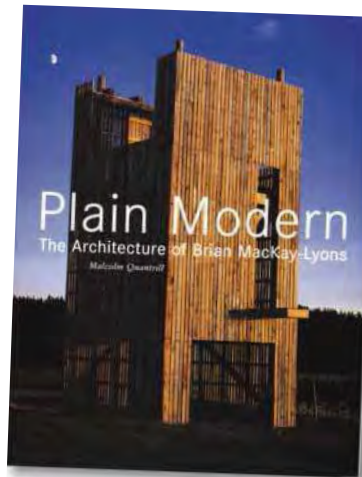
system at the Studio House in Seattle serves primarily to support light fixtures, not the house structure. The awkward guest bathroom and lack of intimacy in this immensely scaled house reveal an inconsistent appreciation for functionality within the chosen projects. The nearby Brain Studio, on the other hand, demonstrates an elemental simplicity and relevance to the ideals of the book, like the “reinvention of the commodity” exemplified by a balcony designed from repurposed road construction steel plates.

Tom Kundig has proved himself an architect with a crafty aesthetic that can become addictive. No doubt his image-heavy monograph will feed the fever. *Christopher Kieran*

Plain Modern: The Architecture of Brian MacKay-Lyons,
by Malcolm Quantrill, with contributions by Kenneth Frampton

and Glen Murcutt and project texts by Brian MacKay-Lyons.
New York: Princeton Architectural Press, 2005, 224 pages, \$40.

In many ways, Brian MacKay-Lyons, who was born and raised in Arcadia, Nova Scotia, to which he returned in 1983 after studying and working abroad, is the Glenn Murcutt of North America. Like Murcutt, the Pritzker Prize-winning architect from Australia, MacKay-Lyons has erected a legacy of plain modern houses informed by local vernacular forms, building materials, and conventions. In the preface to *Plain Modern*, Murcutt likens MacKay-Lyons's buildings to traditional boats and boat-building structures “constructed with tight, crisp, timber-clad skins over simple, internal, exposed structure.” The work, like Murcutt's, is affordable, low-tech,



and tough for a tough climate.

Interestingly, some of MacKay-Lyons's buildings also have a family resemblance to houses by Samuel Mockbee and his Rural Studio in Alabama. MacKay-Lyons's 1998 Barn House is a close cousin to the Rural Studio's Haybale House of 1994: Both are simple, rectangular volumes topped by a big, overhanging metal roof. MacKay-Lyons and

Mockbee's Rural Studio look to simple structures—barns, sheds, trailers—for their design cues.

Plain Modern's weakest link, for me, is Quantrill's introduction. He writes, at length, about events and thoughts more germane to his own work than to MacKay-Lyons's. His characterization of MacKay-Lyons as a “peasant prince” overlooks the fact that peasants have been nonexistent in North America since they first reached these shores and became American farmers. MacKay-Lyons's project descriptions, by contrast, are as plain, direct, and appealing as his buildings.

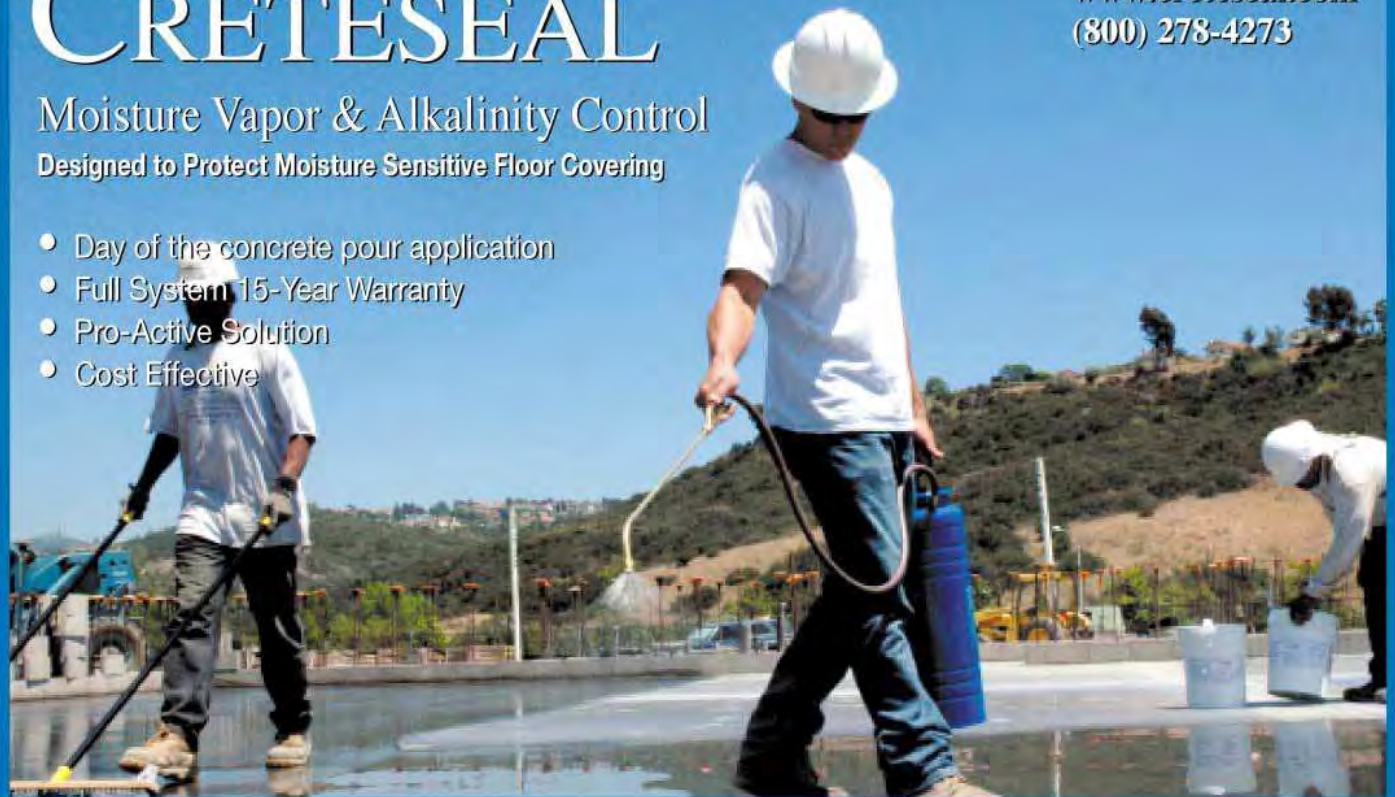
MacKay-Lyons, whose Nova Scotia house designs have made him a leading exponent of critical regionalism, is expanding his horizons. *Plain Modern* concludes with plans and models for the firm's largest and most complex project to date, the Canadian High Commission in Dhaka, Bangladesh.
Andrea Oppenheimer Dean

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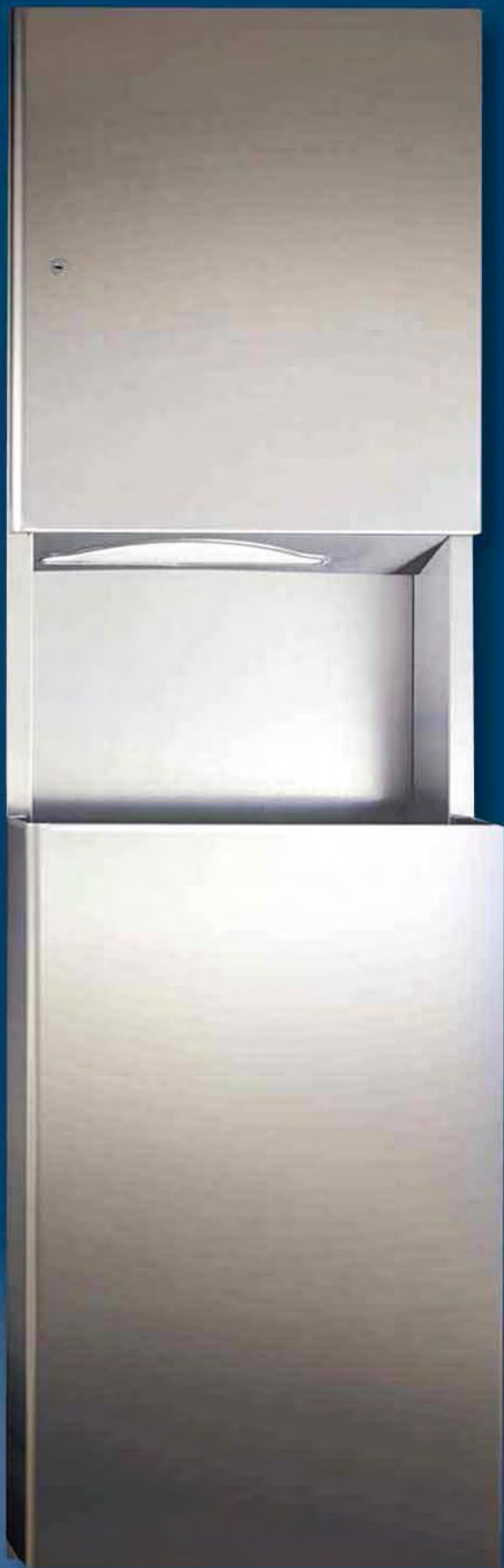
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World-traveling show draws urban design in 10 lines

Exhibitions

By John Gendall

X Lines Curated by Joan Busquets with Felipe Correa. Originated at Harvard GSD, December 2005; Quito Architectural Biennale, November 2006; Tshingua University, Beijing, fall 2007.

Urban Design, a term coined at the Harvard Graduate School of Design (GSD) in the mid-1950s, is the tenuously defined profession consigned to the blurred zone where architecture, landscape architecture, and city planning overlap. Practiced mostly in seminar rooms of prestigious universities, it is still staking out its territory as a stand-alone field. The Fall 2006/Winter 2007 issue of the *Harvard Design Magazine (HDM)*, presents a conversation among nine preeminent designers, academics, and writers on a question urban designers should find pressing: "What is Urban Design?" This query follows an essay by Michael Sorkin in the same issue of *HDM*, in which he begins by announcing, "Urban Design has reached a dead end."

Adding to the uncertainties of the discipline's objectives and professional parameters is the fact that its focus—the city—has undergone

changes sufficient to challenge even the most entrenched field of study and practice. In recent years, cities have swelled at unprecedented rates, forcing a reconsideration of urban strategies.

In the midst of these discussions comes the beautifully executed exhibition, *X Lines: A New Lens for the Urbanistic Project*, curated by GSD professor Joan Busquets, a Barcelona-based architect, in collaboration with GSD design critic Felipe Correa.

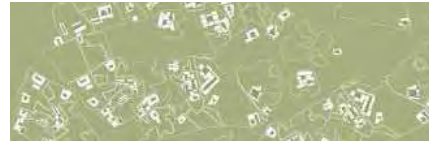
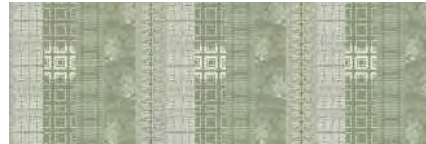
Presenting 10 different methods of carrying out urban design, *X Lines* (with its X referring to the Roman numeral 10) sets out to articulate and perhaps justify this field of investigation. What Sorkin pronounced dead, Busquets and Correa rush in to resuscitate. Sorkin argues that the discipline, overcome with nostalgia, lacks the ideological underpinnings and methodological means to engage cities constructively and imaginatively. While consciously omitting the term Urban Design from the entire show, in favor of "Urbanistic Project," Busquets and Correa offer

myriad examples of how Urban Design is both constructive and imaginative. They envision *X Lines* as a point of departure for designers considering urban interventions and as an infusion into the ongoing dialogue about the discipline's direction.

Dividing the show into methodological categories, the curators identify the following 10 different "lines," or project types, which they appropriate as examples of "Urbanistic Projects": 1) Synthetic Gestures: construction of an iconic

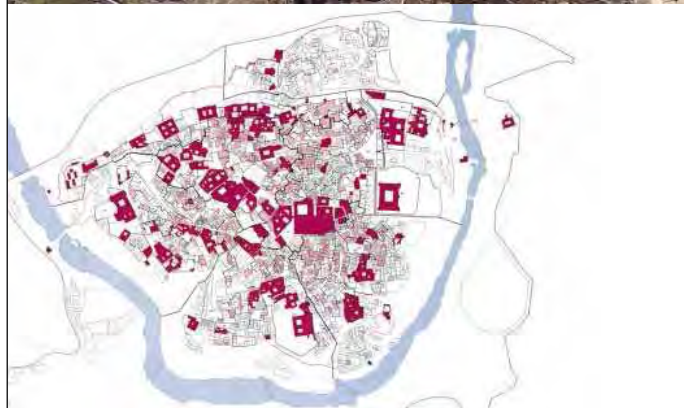
building; 2) Multiplied Grounds: creation of multilevel layers of urban fabric; 3) Tactical Maneuvers: minimalist interventions; 4) Reconfigured Surfaces: restructuring of open space; 5) Piecemeal Aggregations: intermediate urban fragments; 6) Traditional Views: New Urbanism; 7) Recycled Territories: decentralization; 8) Core Retrofitting: updating of historic cores; 9) Analog Compositions: projects that defy master plans; and 10) Speculative

The Quito Biennale showed *X Lines* (below). A mapping of Bilbao analyzed the urban effects of Gehry's building (bottom). "Wallpaper," abstracting urban conditions, runs through the show (left).



Exhibitions

Mappings by Anuradha Mathur and Dilip Da Cunha (left three) analyze colonization in Bangalore, India. An aerial photograph (top right) and diagram (bottom right) show Toledo, Spain.



Procedures: experimental investigations in urbanism.

The “lines” package the exhibition neatly, making it easy to peruse. Each of the 10 walls, assigned to a particular thread of urbanism, has its own “wallpaper” as background, providing graphic yet abstract representations of the interventions exhibited, as well as readily legible distinctions among the categories.

Historical precedents and contemporary case studies expound on each approach. With Synthetic Gestures, the curators look at iconic buildings that, they contend, initiate comprehensive strategies for restructuring entire cities and regions. This category analyzes projects that are often brushed off as merely formal manifestations of star architects’ egos.

Frank Gehry’s Guggenheim, in Bilbao, the perennial example, springs to the top of the list. Mappings by landscape architect Gonzalo V. Cruz reveal the building’s effects on the city’s waterfront, transportation systems, and harbors. Toyo Ito’s Sendai Mediatheque and Peter Cook and Colin Fournier’s Kunsthaus Graz offer further examples of urban catalysts.

Another category, the seventh “line,” Recycled Territories, addresses

urban interventions outside of the consolidated city. Citing New York’s Fresh Kills, and the Bordeaux riverfront and Caen Industrial Park, in France, the curators also turn considerable attention to Anuradha Mathur and Dilip Da Cunha’s mappings of India’s Bangalore territory, demonstrating the role of colonization on that region’s urban areas.

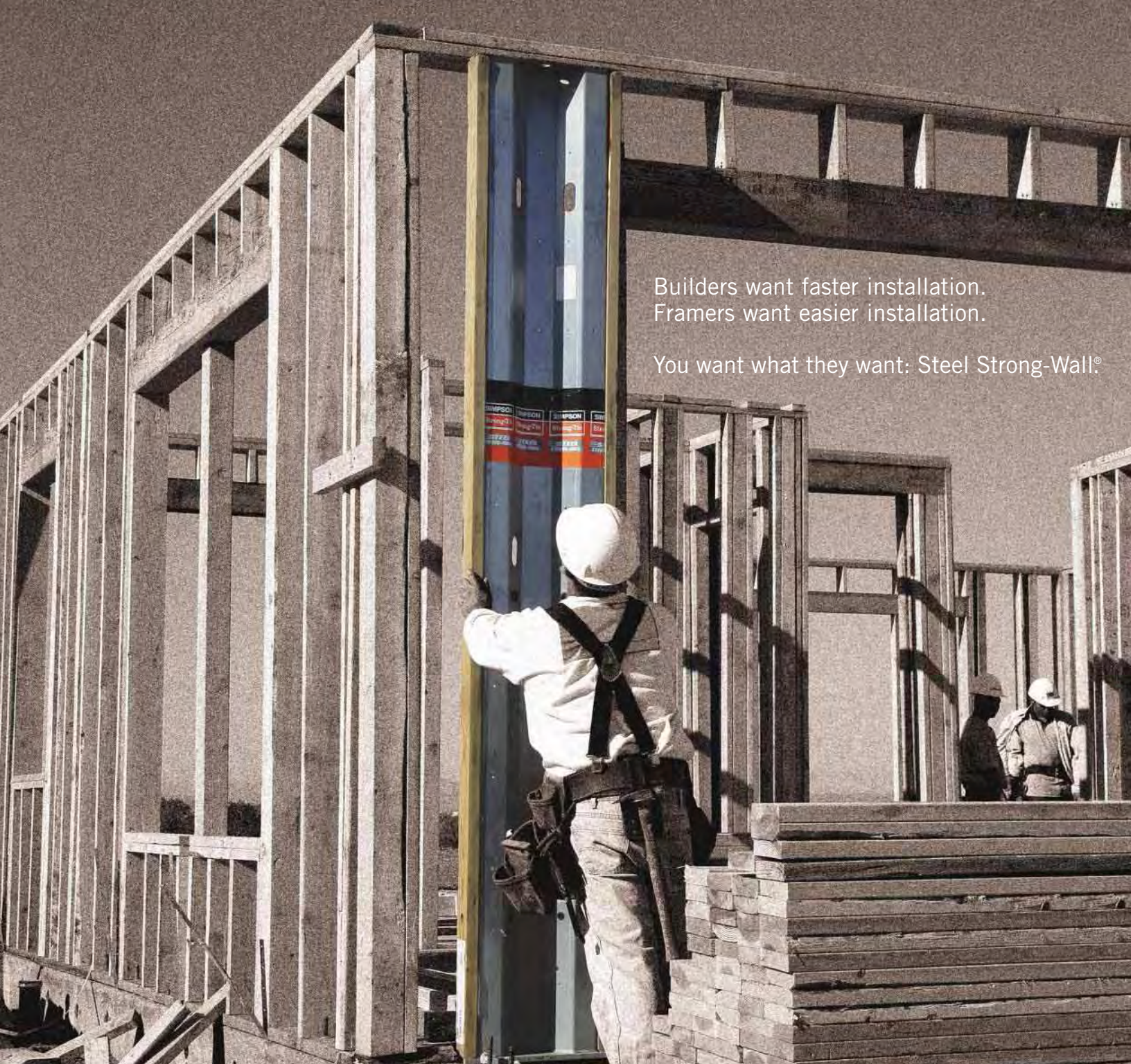
Mathur and Da Cunha’s stunning research highlights one of the show’s greatest virtues and unstated objectives: to reveal and test the limits of the methods of representation used in design disciplines (and, by appropriation, in Urban Design). Replete with magisterial drawings, diagrams, and maps, the exhibition offers a rich spectrum of architectural research. Analytical essays by Busquets and Correa in the accompanying catalog ground the work in terms of urban significance.

Far from definitive, however, the “lines” impose arbitrary distinctions on urban conditions. The curators acknowledge that they could have delineated seven or, for that matter, 29 lines, with some projects falling into any number of different categories. But even with that acknowledgment, the attempt

to define an amorphous profession by herding different techniques into quasi-arbitrary categories is of debatable value. The curators do well to highlight examples of successful projects, which they interpret urbanistically, reminding designers that buildings and landscapes have implications extending far beyond the particular sites.

In the end, viewers are left with a stimulating collection of visual analyses of urban scenarios, some predictable, some surprising, all beautifully represented, and grouped with others that appear at least superficially akin (if not always more profoundly related).

With this exhibition, as with ongoing discussions at design schools, people may still be left wondering, “What is Urban Design?” And such questioning may be the show’s greatest contribution. By reframing the discipline into categories, the curators open the formulation of Urban Design to a new scope of possibilities. Even for a field that has comfortably enjoyed more than 50 years of self-reflection in classrooms and journals, this opportunity for yet more debate places it in more tangible terms than before. ■



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Where independent contractors are concerned, know the rules

Practice Matters

By Alec Appelbaum

Architecture firms may need to lure extra hands for all sorts of reasons. One might be to staff up for a sweet opportunity that's too good to pass up, but is just a bit beyond the capacity of the office. Another might be to get the benefits of a specialist whose skills are perfect for a current project but might or might not be needed in the future. Those sorts of situations always present princi-

pal dilemmas. This is not only because it wants to protect workers from unscrupulous practices, but it also wants a smoother flow of tax payments and, ostensibly, a fairer market. "Employers that improperly deprive workers of benefits disadvantage those businesses that bear higher costs in complying with the law," said Massachusetts' tax agency in a 2004 advisory

DON'T THINK THAT JUST BECAUSE YOU'RE NOT WITHHOLDING TAXES ON SOMEONE THAT THE IRS WILL AGREE THAT THEY'RE AN INDEPENDENT CONTRACTOR.

pals with a dilemma: do you hire new staff permanently or expand temporarily using hired guns? At first glance it appears that if the good times won't last and overhead will have to be shaved when the project ends, independent contractors may seem to be the solution.

But don't think that just because you've decided not to withhold income and social security taxes from a person's wages that the Internal Revenue Service will agree that you've truly retained an independent contractor. The IRS can be very picky about this and it has certain tests to apply to any given situation. It can hit you with penalties if it disagrees about whether someone has been working for herself or as an employee of

your practice. This is not only because it wants to protect workers from unscrupulous practices, but it also wants a smoother flow of tax payments and, ostensibly, a fairer market. "Employers that improperly deprive workers of benefits disadvantage those businesses that bear higher costs in complying with the law," said Massachusetts' tax agency in a 2004 advisory

explaining its strict attitude. "In this way, independent contractor misclassification undermines fair market competition." Architecture has become a more collaborative business as clients have sought sustainability, buzz, and new technology. The kind of expertise a practice needs to reach a new threshold often involves specialists—lighting consultants, irrigation experts, model-makers—who may only work for a short time. Hiring outside companies such as structural engineers need not induce the employee-or-contractor question: the firms must evaluate their own employment practices. But when architects take on individuals for short stints, tax questions and ethical ones intertwine. Many in the profession, leery of exploiting young and energetic designers, simply avoid taking on help during busy times without providing health benefits and insurance.



Who's an independent?

Like it or not, somebody becomes an employee in the tax collector's eyes just by showing up enough times, using your equipment, and willingly taking direction. And, nowadays, when many architects and specialists work freelance forever or between jobs, it is particularly important for large and small practices to document nonpermanent workers carefully.

Senior associate Polly Brazelton of Michael Van Valkenburgh & Associates, which keeps offices in

New York and Cambridge, Massachusetts, consulted a lawyer after Massachusetts tightened its definition of "independent contractor" in 2004. On advice from counsel, the firm started withholding payroll taxes from a broader range of workers. Brazelton sums it up: "If they are working in our offices with our equipment for long stretches, even if they had a different expertise, we would classify them as an employee."

The IRS also invokes a test, the "common-law rule," to decide whether you have to withhold taxes

Alec Appelbaum is a Manhattan-based writer who covers architecture, planning, and urban life for several newspapers and magazines.

Practice Matters

from a worker. Essentially, it turns on how thoroughly the person follows the firm's instruction and uses the firm's resources. A firm can only control the results of an independent contractor's work; they cannot control how the work is accomplished. Brazelton says her firm confers employee status via three tests: "If they are doing substantially the same work as our employees, if we are directing the process by which they work, or we are providing the location and tools for them to complete the work." She advises architects to show their lawyers the firm's hiring practices, policies, and procedures to make sure nobody triggers a meaningful penalty.

Also, have your lawyer draw up a menu of items that define what it means to be an independent contractor, and to go over the terms with every freelancer who comes to work in your offices, and possibly have them sign a statement that says they received the document. Among the items that might be covered are that the work is for hire; that taxes are the responsibility of the worker; and that the relationship can be terminated at will by either party. An adroit freelancer, says Rafael Pelli of Pelli Clarke Pelli, will "ask as many questions as possible." But knowing what questions to ask, he adds, only comes with time and experience.

"There's a lot of moving around of younger architects because it's very easy for a small firm to get busy or a large firm to get unbusy," says Ed Rubin, a principal in Manhattan's Mullen Rubin Architects. (His office consists of the two principals, an architect, and a secretary.) "There are many firms that underpay because they bid too low on projects to pay wages that are acceptable."

Rubin won't pay freelance fees to anybody who works full days for his firm and doesn't have other meaningful income. "Sometimes

there's a subtle difference," he says. "If I am a draftsman and I do work for 20 architects, that's one thing. If you just pay me a fee as a way of avoiding the withholding that comes with wages, that's another."

Freelancers and firm culture

No architect would say that avoiding hassles from the IRS over who's an employee and who's not will make them sharper at their craft. But whether your firm decides its priority is to train and retain or to run lean and mean says a lot about a firm's culture internally, as well as what strengths it may offer its clients. Many architects say that leaving employment terms loose can lead to

DRAW UP A LIST OF ITEMS THAT DEFINE WHAT AN INDEPENDENT CONTRACTOR IS AND GO OVER IT WITH THOSE YOU HIRE.

excessively casual attitudes about the quality of the work, since freelancers may not have the same level of commitment that employees do.

Tim Love, AIA, principal at Utile Design in Boston, says a payment scheme often influences how workers manage their time. He says bringing on workers without benefits can make a studio seem more like an atelier than a dynamic business. Independent contractors who work for long periods of time without getting social security or workers' comp, he says, can start to feel like students. The message from the "employer" to the worker can amount to: "You [should] pay me to work here because it's like you're in school." Love treats this as a "shady practice" that used to arise fairly often at "boutique firms." And he says he avoids it as much to preserve a "9 A.M. to 6 P.M. culture," in which everyone feels impetus to work efficiently, as to stay out of trouble with the tax collector.

So if a broad definition of "employee" serves your bookkeeping and your bottom line, how can a firm go about staffing up for sudden big

jobs? The answer depends on the firm's size and resources. The 20-person Utile staff includes six teachers, so Love taps students who understand the link between their studio work and the experience they gain in the job. While small firms like this can use students to support a team, large ones can treat ambitious projects as chances to deepen their overall strength. Again, firm culture drives the decision as much as bookkeeping does.

Seattle-based NBBJ uses labor-intensive new jobs as occasions for finding new hires who can enrich the firm over the long haul. NBBJ architect Kerry Hegedus says the chance to design Safeco Field for the Seattle Mariners prompted the firm to use a smaller firm in-house for a limited time—but also prompted a wave of new hires who

stuck around and adopted different roles over time. "We look for people with some experience," he says. "There's more upside in hiring someone than in having someone come in for a few months."

At the other end of the scale, sole practitioners turn down work rather than endure the hassle of accounting for—and managing—extra staff. Berkeley's Scott McGlashan, who started McGlashan Architecture in 2004, says he limits extra help to "a few hours here and there," mostly for design and drafting work. Staying solo hardly eliminates all tax headaches, but it allows a young firm to focus on building a style and reputation more deliberately. He says he's finishing up a \$3 million house and would have to take on staff to manage two projects of that size. Again, what looks superficially like an accounting question bears on how an architect manages client contact and portfolio.

Of course, today's flexible workforce allows some architects to grow their practice while treating their full-time staff as free agents.

One head of a six-person firm even argues that this treatment stokes creativity and output, but steers clear of long-term commitments. "People act as employees in every respect except for on the books," he says. "In every respect it's like working at SOM except that come payday, they invoice me, I cut them a check for the full amount, and they pay their own taxes." Tellingly, this person only spoke on the condition of anonymity.

This practitioner argues that freeing himself from accounting headaches enhances office productivity by treating workers with respect. "It's not easy for a young firm to heap on benefits. I pay more than a lot of small firms, and I'd rather give [workers] the money and have them figure out how to spend their money." Moreover, he says, the arrangement lets his staff claim tax deductions on equipment, meals, transportation, and home-office equipment they use. The IRS has examined the practice, he says, adding that his "immaculate records" documented all his office's work and sent the examiner away after 2 hours.

In crowded markets, where there is almost always lots of work, people may work as independent contractors throughout their entire career. In New York City, an advocacy group, Freelancers Union, offers health insurance at discounted rates to independent designers. And even in cities without insurance pools, there may be enough work available for ambitious designers to cover their own taxes and insurance while they build a portfolio. In this situation, advises Pelli, the worker should clarify mutual goals and approaches at the outset. That's something architects should know how to do with clients, of course. But it's not something they can do with the IRS. ■

Always consult a lawyer or accountant regarding employment and tax questions. Readers can download the Internal Revenue Service's information on independent contractors by visiting Practice Matters on the Web at archrecord.com/practice/.



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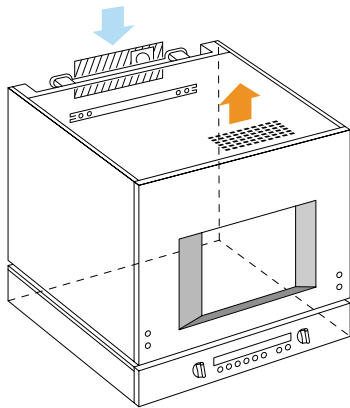
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Product View



By Rita Catinella Orrell

With the touch of a button, Gaggenau's 24-inch Lift Oven's glass ceramic base lowers directly from the oven to the countertop, where meals can be loaded and then raised into the cooking cavity. According to the manufacturer, this new approach results in minimal energy loss as the heat remains in the upper cavity when it is opened. The design may also aid users who have limited strength or mobility as access from three sides eliminates the need to reach into a hot oven. The stainless-steel-tinted glass front oven can either be hung on a wall or built into hanging cabinetry. Features include halogen lighting, 11 heating methods, automatic temperature recommendation, and precise electronic temperature control. An added bonus for cooks: Items such as bread and pizza can be cooked directly on the glass ceramic base, and a pyrolytic self-cleaning program burns off any residues left behind. Gaggenau, Huntington Beach, Calif. www.gaggenau-usa.com **CIRCLE 200**

A wall-mounted oven that offers counter service

Clockwise from top left: A drawing illustrates the oven's ventilation and air-extraction slots, which must remain free from obstruction; the oven descended to counter height; halogen lighting provides a view of the interior.



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Trade Show Review Cologne • International Furniture Fair

imm Cologne has the distinction of not only being the first furniture fair of the year, but one of the biggest. The ideal venue for Northern European companies to present their latest creations, imm also boasts one of the most international displays of furniture design anywhere. *Josephine Minutillo*

1 A designer's legacy Designed by the late Maarten Van Severen (and carried through by his former assistant), Pastoe's introduction of a leather lounge chair was quite the surprise. The chair features a one-sided mounted armrest and a cross-stitched leather cover that is screwed to the stainless steel frame. Pastoe, Utrecht, The Netherlands. www.pastoe.nl **CIRCLE 201**

2 Lava flow The team behind Studio Vertijet, Kirsten Antje Hoppert and Steffen Kroll, designed the Lava sofa for Cor. Featuring an amorphous, flowing form, Lava includes a range of transforming elements, including one that overlaps the seat of the sofa to spread onto the floor. Cor, Rheda-Wiedenbrück, Germany. www.cor.de **CIRCLE 202**

3 Updated classics Thonet's classic bentwood chairs were recently treated to a face-lift. The Viennese Coffee House Chair, or Chair no. 214, is now available with an airy, mesh-fabric seat in addition to the original woven-cane seat, and in upholstered versions in a variety of colors. Thonet, Frankenberg, Germany. www.thonet.de **CIRCLE 203**

4 Finished floors Textile designer Hanna Korvela's most recent introduction is Aqua, a resilient indoor/outdoor rug. Unlike most water-resistant rugs, Aqua has a soft look that is suitable for residential use and in spas for sauna and pool areas. Hanna Korvela Design, Kuopio, Finland. www.hannakorveladesign.fi **CIRCLE 204**

5 Log on As one half of imm's Ideal House exhibitors alongside Zaha Hadid, Naoto Fukasawa played a major role at this year's fair. Resembling a fallen tree, his distinctive Log series in oak veneer features low, hollow benches, both long and short, and a vertical stool that doubles as a table. Swedese, Vaggeryd, Sweden. www.swedese.com **CIRCLE 205**





6



6 Giddy up When it comes to finding playful, even off-the-wall pieces, Belgian outdoor line Extremis is typically a safe bet. This year in Cologne, the company presented an unusual new outdoor seating ensemble. Bronco is a plastic stool whose shape is derived from a horse saddle. The accompanying table, Corral, also made from rotation-molded polyethylene, can be lit up in various colors depending on the chosen filter. When hung upside down, the table becomes a light fixture fittingly called C'upsidedown. Extremis, Gijverinkhove, Belgium.

www.extremis.be **CIRCLE 206**



7

8



7 Soft woods Founded in 1995, e15 established its reputation for its exclusive use of solid wood, particularly oak. Recently the company has broadened its scope, this year introducing two new upholstered pieces. The Kashan sofa is easily identifiable as an e15 product with its solid wood backrest and Minimalist form. The Shiraz sofa (shown), on the other hand, features no wood at all. Its unusual form was inspired in part by traditional Persian seating islands. e15, Oberursel, Germany. www.e15.com

CIRCLE 207

8 Far-out fabric Winner of the Best Item award at imm, Kinnasand's Rocco fabric exploits a new development in weaving technology. Using a special clip-cord technique, the multi-layered, graphically arranged colored panels optically flow into one another. The resulting complex coloring and shading gets its airiness from the change from sheer to densely woven stripes. Kinnasand, Westerstede, Germany. www.kinnasand.de **CIRCLE 208**

9 Punk rocker The young design duo of Patrick Frey and Markus Boge have designed products for several German furniture companies, most recently for the playful line Elmar Flötotto. The splayed legs of their new seat, Abraham, may look a bit odd, but they make for a comfortable and smooth rocking chair. Available with a matching ottoman. Elmar Flötotto, Gütersloh, Germany. www.elmarfloetotto.de

CIRCLE 209

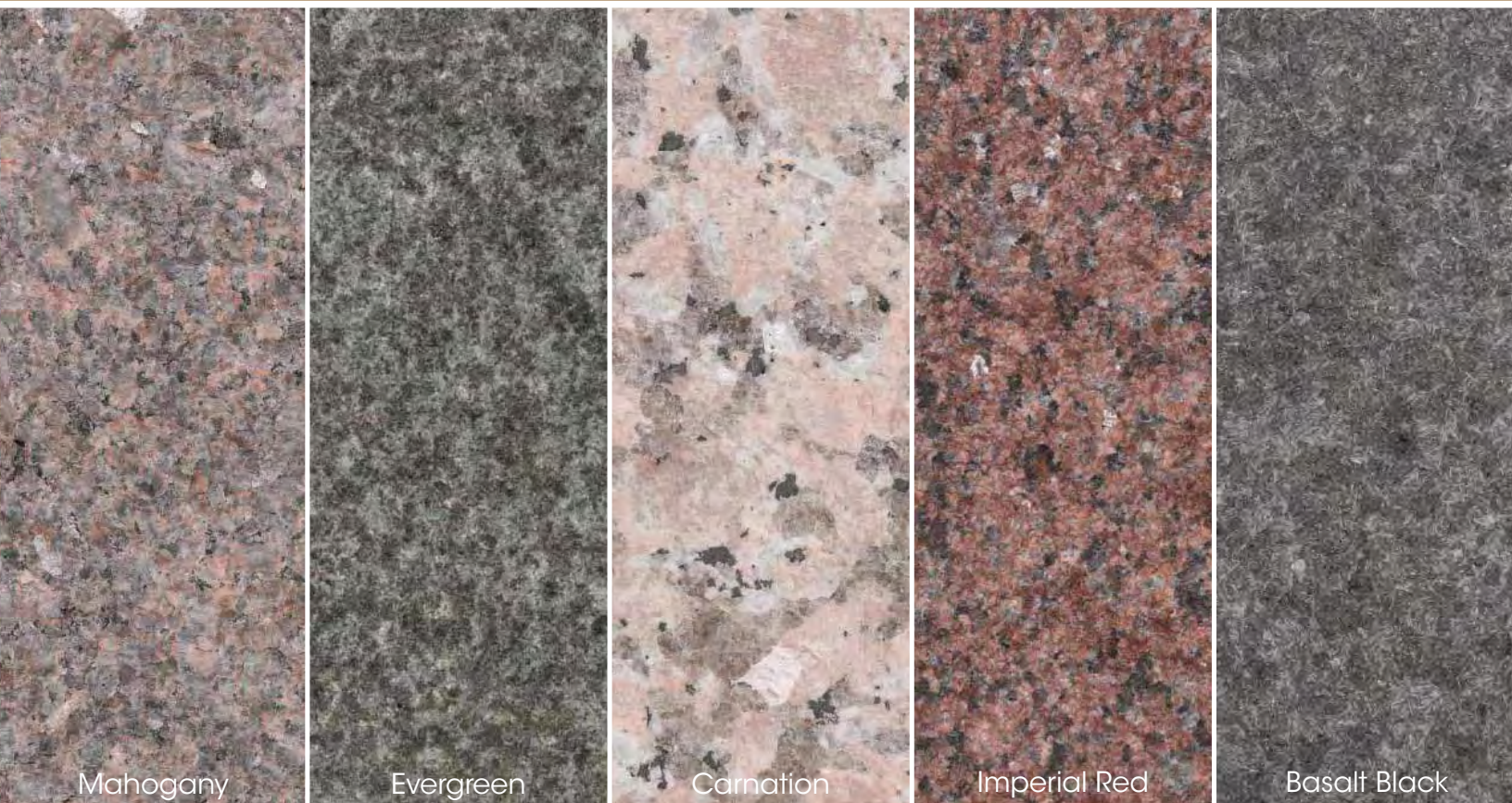


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Snapshot



By Beth Broome

After the last of the *crema Catalana* has been consumed and the dregs at the bottom of the demitasse cup are all that remain of a blowout dinner, a car ride home can be a real letdown. Hoping to extend the experience of dining at Les Cols, a world-class restaurant in Olot, in northeastern Spain, chef and owner Fina Puigdevall called upon local architects RCR to create a luxurious but spare lodging—with five separate pavilions—for diners wishing to spend the night. Four years earlier, RCR had designed the restaurant itself, using steel in varied and fanciful treatments, on the ground floor of the Puigdevall family's 17th-century farmhouse [RECORD, September 2003, page 136].

The chef brings a philosophy to her cooking that celebrates pure, unadulterated ingredients. And the architects seem to share this view. "We use as few materials as possible," says RCR partner Carme Pigem. "We try to exploit the different ways of using or looking at the same material." Each slightly different from the next, the pavilions are, except for their steel structural elements, almost entirely of

Ode to the postprandial retreat

Snapshot

Layers of transparency and reflection blur lines between inside and out (right). Bathrooms are minimal to an extreme (below). Pavilions are accessed off of glass-louver-lined exterior corridors (bottom).



a single material: glass, expressed in laminated ceilings and floors; transparent walls and doors; and translucent floor-to-ceiling louvers.

To enter the pavilions, guests follow one of two narrow paths defined by stainless-steel elevated walkways and flanked by the louvered glass walls that cast a dramatic green glow. Each pavilion looks out onto its own small courtyard, paved in dark concrete, textured to resemble both a plowed field and lava flows—a nod to the region's volcanic past. This treatment continues beneath the pavilions, visible through the raised glass floors. Clusters of thin steel tubes, painted green to mimic reeds, provide privacy between the small buildings.

RCR has created a postprandial hermitage in the midst of this small Catalan town. The decor is monastic. Each interior features a single piece of furniture: a leather-clad mattress that serves as a table, bed, or sofa. There are no TVs, phones, or electric outlets. A built-in closet and mini bar remain discreetly concealed. Bathrooms are similarly pared-down, featuring simple black fixtures devoid of fittings as the sink and bath are constantly filled with water, relying on a sensor to prompt replenishing as needed.

While transparency and infinite reflections help bring the outside in, the rooms' austerity draws the visitor's focus even deeper inside, beyond the confines of the space. "You have the sky, the air, the silence, the

water," says Pigem, noting that leaving guests alone with these natural elements gives them entrée to one of the richest delicacies of all: introspection. Even if you did not come to Les Cols to meditate, there is a good chance you will be feeling the flow of your chi before you check out. ■



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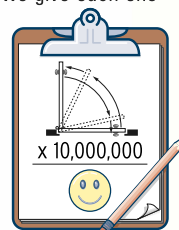
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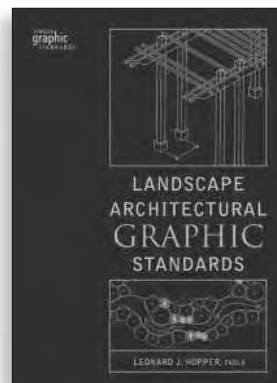
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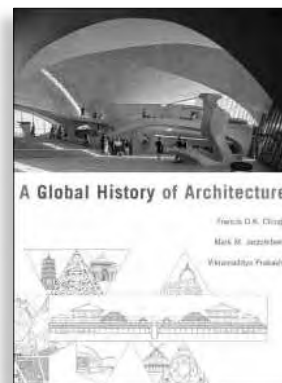
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— RECORD dives in



By John Gendall and Sarah Amelar

Pools are all about experience. *The Graduate's* Benjamin Braddock, aimlessly adrift on his inflatable raft and peering through his diving mask, can attest to it. As can the starlet of glossy Hollywood 8x10s, lounging poolside in a glamorous bikini and stilettos.

People once went to pools for sacred rites of bathing and immersion, as in ancient Greece and Rome. Now such aqueous oases have more to do with rites of leisure than anything else. And no matter how shallow or deep the experiences offered there, swimming

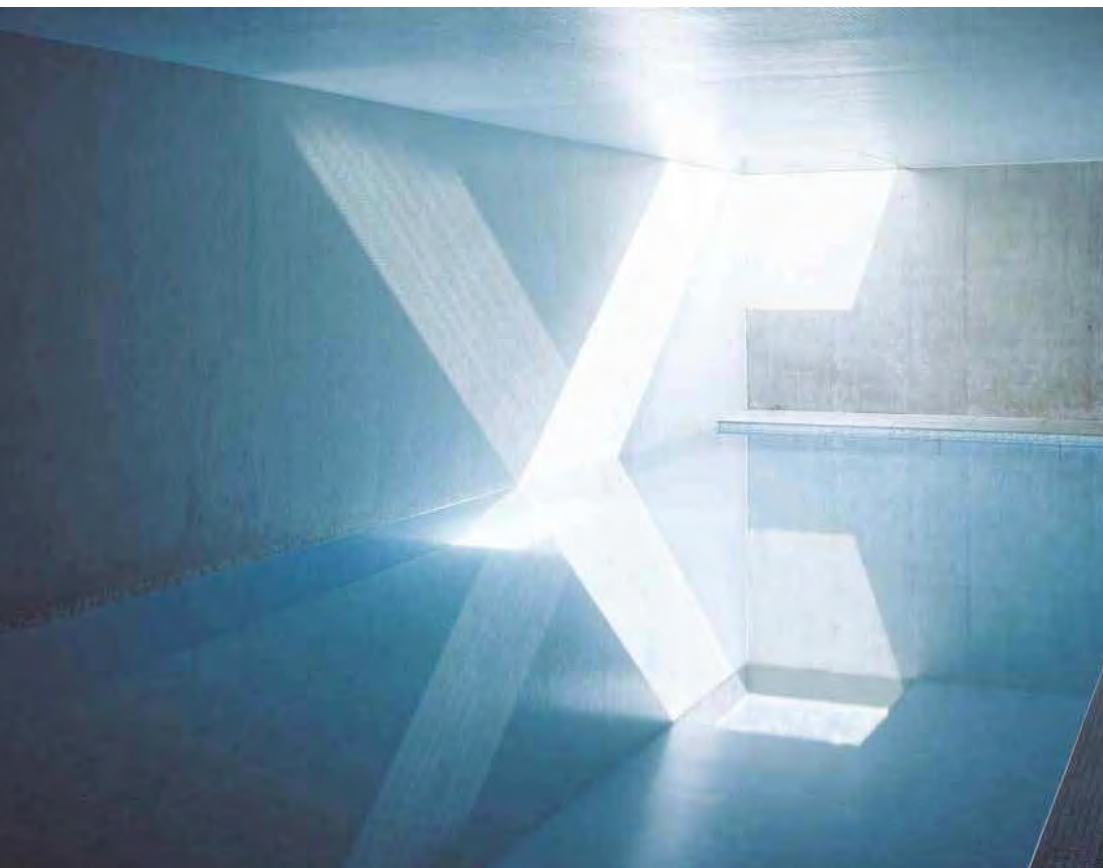
Just add Water

Left: OMA: Villa dall'Ava,
St. Cloud, France.

Right: Julia Morgan: Marion
Davies's Beach House,
Santa Monica, California.







Left: Jonathan Woolf:
Brick Leaf House,
London.

Below: Bohlin Cywinski
Jackson: Farrar
Residence,
Park City, Utah.



pools remain fabricated environments—artificial bodies of water, whether rectilinear or kidney-shaped and lined in turquoise, or placid planks of liquid vanishing into the horizon.

Presenting a small collection of choice residential pools, *RECORD* slips into a sensible swimsuit and takes the plunge. Moving from the inside to the outside, and then back in again, we float from the depths of artifice to the shimmering surfaces of faux nature.

At Marion Davies's California beach house, designed by Julia Morgan for William Randolph Hearst, the indoor pool glitters with lapis and gold tile. This surface suggests an opulent oriental rug that, in effect, upholsters not only the pool, but also the poolside, the walls, and the ceiling. Enveloping the entire space in deep-water hues and rich textile patterns, this pool area becomes an exotic, all-immersive living room.

Meanwhile, outdoors, David Hockney, the arbiter of all things aquatic (and perhaps, artificial), abandons the rectilinear in favor of the kidney for his own pool in Southern California. The kidney-shaped backyard pool (a cousin of amoeba or boomerang coffee tables) became a prototype in the 1950s. With it, the artist celebrates the banality of the American suburb. By painting swirling, multicolored lines on the great water container's bottom, he gives it an added dimension, playfully suggesting wild undercurrents.

In Papudo, Chile, Smiljan Radic cantilevers a cast-concrete pool, thrusting it like a visual spring-

PHOTOGRAPHY: © HELENE BINET (TOP); NIC LEHOUX (BOTTOM); RICHARD BARNES (PREVIOUS PAGE); PETER AARON/ESTO (FIRST PAGE)

Right: Smiljan Radic:
Casa Pite, Papudo,
Chile.



PHOTOGRAPHY: © CRISTOBAL PALMA (TOP); RICHARD SCHMIDT (BOTTOM)

Right: David Hockney:
The Artist's Own Pool,
Southern California.





Left: Casa Delphin,
Fuster + Partners,
Santurce, Puerto Rico.

board to the Atlantic Ocean. While Radic projects this line of sight into the horizon, Rem Koolhaas, with his Villa dall'Ava pool, aims the trajectory at the metropolis of Paris. In the Chilean example, you swim laps in a concrete box while floating toward the sea, whereas in the other, you plunge in amid trees, only to drift toward the city in the distance.

But instead of surging forward, the pool at Bohlin Cywinski Jackson's Farrar Residence nestles into a forest. Its swimming area's glazed end—literally cutting a section through the water—creates a compelling aquarium effect, with the glass enclosure revealing swimmers only a thin separation away from the earth beneath them.

Even deeper in the ground, the subterranean pool at Jonathan Woolf's Hampstead Heath Brick Leaf House occupies a cavernous setting. Poetically lit by shafts of daylight entering through thin, overhead perimeter openings, this space engages simple means to produce a mesmerizing effect, abstracting the sun's rays into intersecting planes of illumination.

Finally, Nataniel Fuster orchestrates yet another dynamic play of light and water at his Casa Delphin pool in Puerto Rico. Here, small perforations in the ceiling parse rays that the water reflects and refracts, generating an animated dappled effect.

With each of these pools set at its own experiential temperature, the water's fine—so put on that swimsuit, inflate your raft, and come on in. ■



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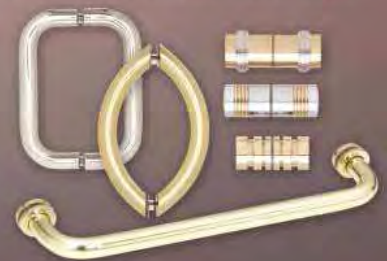
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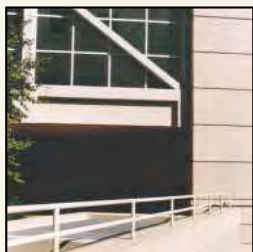
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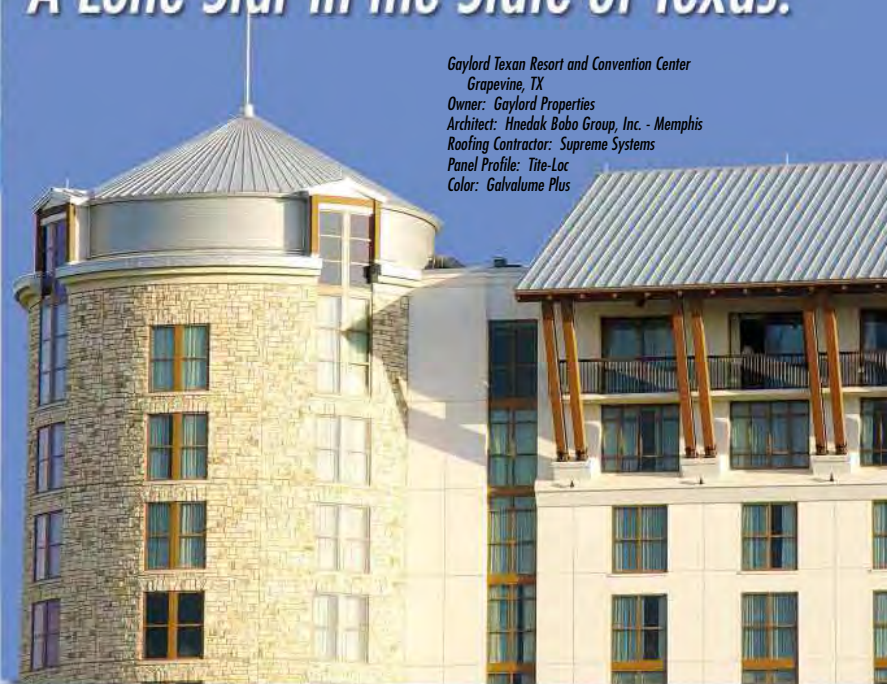
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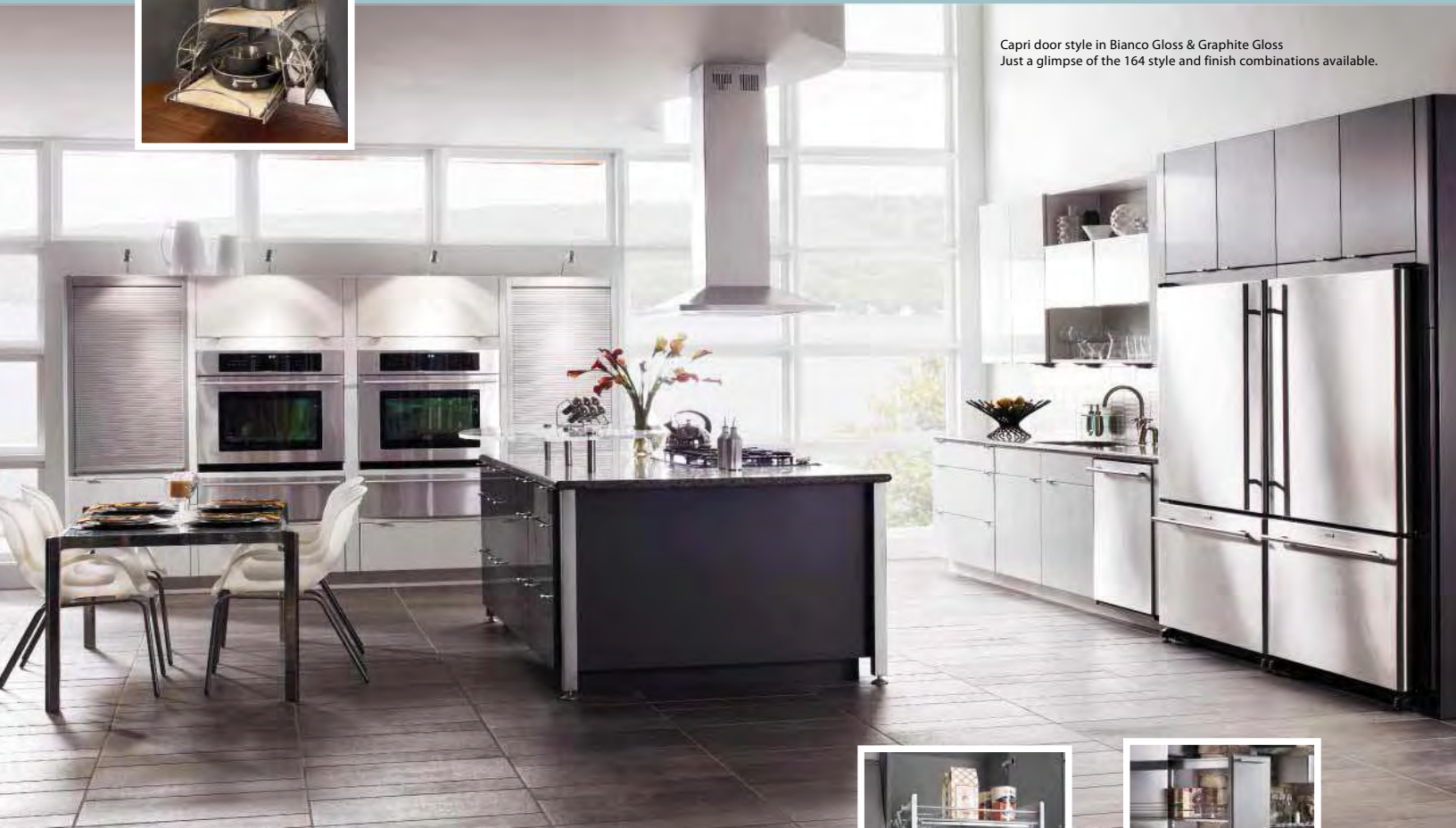
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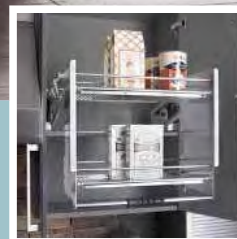
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Cabinetry

Record Houses 2007

How to slip a rambling 21st-century dwelling into the narrow bell tower of a 17th-century church by Christopher Wren? Tackling that architectural riddle, nearly as perplexing as the prospect of passing a camel through the eye of a needle, architects Boyarsky Murphy rose to the occasion with a remarkable 11-story “flat,” a soaring folly in central London. This great monolithic spike stands in Record Houses 2007 amid six other featured projects. Though no two houses rose from similar circumstances, an extraordinary challenge generated each one.

On Hawaii’s Big Island, 80-mile-per-hour winds were the driving force behind Cutler Anderson’s Ohana Guest House. Here, a detail—a steel tie anchored to the house’s lava-rock plinth to lace down the roof—engendered the whole, a house formed to weather the trade winds.

Meanwhile, a tight squeeze—a densely forested site—inspired TNA’s Ring House, in Japan. Preserving the trees, TNA inserted among them a tall, delicate building rising from a minimal footprint. With deftly engineered expanses of transparency, the structure was designed as an idyllic perch for viewing woodland growth.

For a weekend home in New York State, UNStudio’s clients, aficionados of Modern architecture, expressed a daunting desire: a new work rivaling anything by Neutra or Schindler. UNStudio responded by reinterpreting the midcentury masters, putting a 21st-century spin (and, literally, a brilliant glow) on that clean-lined aesthetic.

1. UNStudio: **VILLA NM**
2. TNA: **Ring House**
3. Randy Brown: **Brown House**
4. PvE: **Casa Poli**
5. Cutler Anderson: **Ohana Guest House**
6. Boyarsky Murphy: **Christ Church Tower**
7. KieranTimberlake: **Loblolly House**



Though in most of these cases, client enlightenment helped prime the way for innovation, the owners of the three remaining houses were the architects themselves, who would be living with their experiments.

For Stephen Kieran’s weekend home, in Taylors Island, Maryland, he and his firm, KieranTimberlake, set out to test a construction method using entirely prefabricated elements and components, including cartridges with integral building systems that allowed for assembly of the prototypical Loblolly House in just a few weeks. Siting the building gently like a camouflaged duck blind, the team gave it barklike sheathing that echoes the surrounding loblolly grove and pilotis that evoke tree trunks.

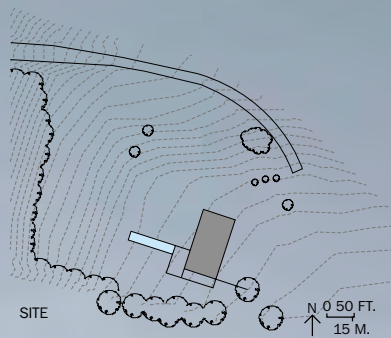
In Omaha, Nebraska, Randy Brown’s house evolved, by design, as an improvisatory collaboration with the architect’s students. Beyond the datum of a traditional program and limited material palette, the project lay wide open to considered invention. Flaunting its process and protesting the Prairie trope’s polite conventions of low horizontality in the landscape, the house, nicknamed LAB-or-a-t-ory, remains an energetic work in progress.

Finally, PvE’s Casa Poli, a concrete cube recalling a great porous rock, appears to have grown from the jagged coastal cliff beneath it. The materials and construction methods not only speak to the site, but also accommodate the skills of local laborers. Doubling as an artists’ retreat, the house frames multiple, often abstract readings of the rugged landscape—offering myriad thought-provoking, but curiously relaxing views.

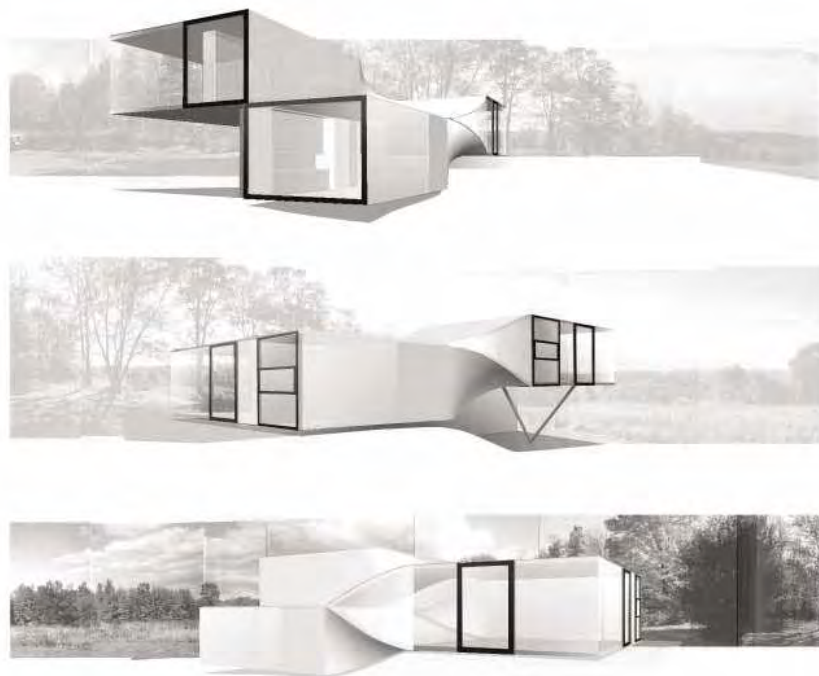
Each of our seven featured houses—imaginative solutions—emerged from idiosyncratic sources of inspiration, with constraints and obstacles as colorful and varied as the venues themselves. *Sarah Amelar*



Sited atop a hill in rural New York State, the house appears to rise over the terrain. A long drive leads to the building's east side and carport. UNStudio inserted a lap pool on the western slope.



Joining rectilinear forms with a twist, **UNStudio's** **VILLA NM**, in upstate New York, captures the landscape in gold reflections



The house morphs into a different form with each elevation, as revealed from its north (top), southeast (middle), and west (bottom) orientations.

By Suzanne Stephens

The client, a New York-based developer with a young family, had a clear goal: a weekend house “as exciting as anything by Neutra and Schindler.” With *Villa NM*, he got it—in spades. The flat-roofed, taut, planar house in upstate New York, designed by UNStudio, of Amsterdam, both evokes its predecessors and pushes their architectonic qualities into a new realm.

Whereas the Modernist structures of the early-to-mid-20th century emanated from simple rectangles that seemed to float above a grassy lawn or perch on a craggy cliff, something else is going on here. If the south elevation brings to mind Mies van der Rohe’s Farnsworth House (1951) coupled with Philip Johnson’s Glass House (1949), or the stepped massing to the north harks back to Schindler’s Lovell House (1926), then what about that curved middle section? While the original architectural paradigms define the box-on-a-rock category, this villa is a box-on-a-rock-with-a-twist. The singular insertion of what UNStudio principal Ben van Berkel calls a “bloblike moment” causes “a simple shoe-box shape to bifurcate into two separate volumes, one clinging to the northern slope, the other detaching itself from the ground to leave room underneath for a covered parking space.” Not only does the new prototype assume a more complex spatial relationship to the land, it creates quite a different interior environment.

The client and his wife, both aficionados of current design and art, encountered the work of UNStudio, headed by van Berkel and Caroline Bos, at the Museum of Modern Art’s 1999 *Unprivate House* exhibition. There,

the couple (who themselves are very private) were drawn to the display of the firm’s attenuated Möbius House, built in Het Gooi, the Netherlands, in 1998, and inspired by the Möbius strip, the single-surface topological model. As van Berkel recalls, “They were fascinated by the way the design wove together living, working, and sleeping activities in a continuous movement.”

The client found 2 acres on a hilltop that commands spectacular views of rolling pastures and forests with no other houses in sight. Both he and his wife, who are originally from Russia, welcome changing seasons and wanted to watch turning leaves and falling snow while inside the house. The architects happily responded with what they called a “viewfinder dacha”—a 3,600-square-foot villa, which dramatically embraces the surrounding landscape through expansive glass walls.

But more unexpected are the swooping interior spaces forming the core of the house, which you first detect as you approach the front door and carport, tucked under the cantilevered bedroom wing: Here, the exterior wall of the south end lifts up in a gentle curve to meet the soffit above

Project: *Villa NM*, New York State

Architect: UNStudio—Ben van Berkel, principal; Olaf Gipser, Andrew Benn, Colette Parras, Jacco van Wengarden, Maria Eugenia Diaz, Jan Debelius, Martin Kuitert,

Pablo Rica, Olga Vazquez-Ruano, Wouter de Jonge, team

Engineers: Robert Silman Associates (structural, HVAC)

Landscape: Pouder Design Group



the entrance. Passing through the entry vestibule, you enter the house proper, where a sculptural cooking island in the kitchen leads your eye out through the glass wall toward a pastoral view to the north. But your attention is quickly diverted in the other direction—to the accordion edge of the stair, revealed like a crisply pleated sheet unfurling within cocoonlike white plastered walls. The stairway’s contours and splayed treads pull you up to the living room on a level poised 5 feet above the entry. The exuberant spatial effect of this small-scale Baroque circulation device is mesmerizing: You half expect Georges Guétary to pop out and croon “I’ll Build a Stairway to Paradise,” as he did so memorably in the 1951 film *An American in Paris*.

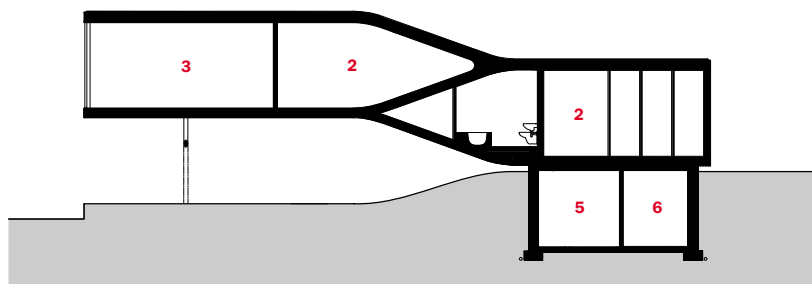
As you ascend to the white living room, your gaze is again propelled out into the landscape through glass expanses to the south and west. A massive fireplace wall, sheathed in a tightly grained Macassar ebony, defines the space to the east (and conceals structural cross bracing). But then you notice that the fluidly sculptural stair behind you has taken a sharp turn to float up to another half level, where it ends in an onyx-paneled bath and adjoining master bedroom.

From this landing, you look down on a twisted vortex of line and space that van Berkel describes as a “kaleidoscopic dynamism, where mobility and materiality come together.” If there were a remake of the 1971

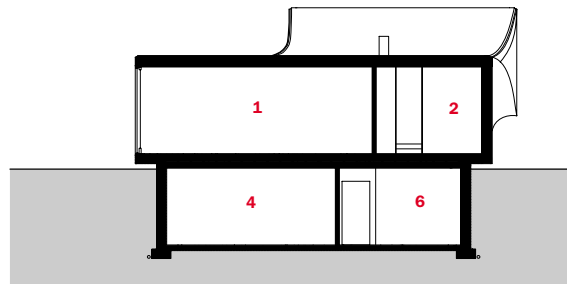
Gold-tinted glass dematerializes the house by reflecting trees and sky, as on the south face (above). On the east side

(below), beneath cantilevered bedrooms, the profile of the sprayed-on, earth-brown concrete wall lifts over the entry.





SECTION A-A



SECTION B-B

0 10 FT.
3 M.

1. Living area
2. Bedroom
3. Master bedroom
4. Guest
5. Mechanical
6. Bath

Prefabricated contoured steel panels (section, above) form a clam-shaped bedroom on one level and a bath underneath. The bedroom's profile is expressed on the exterior of the east elevation (below), near the V-shaped columns.



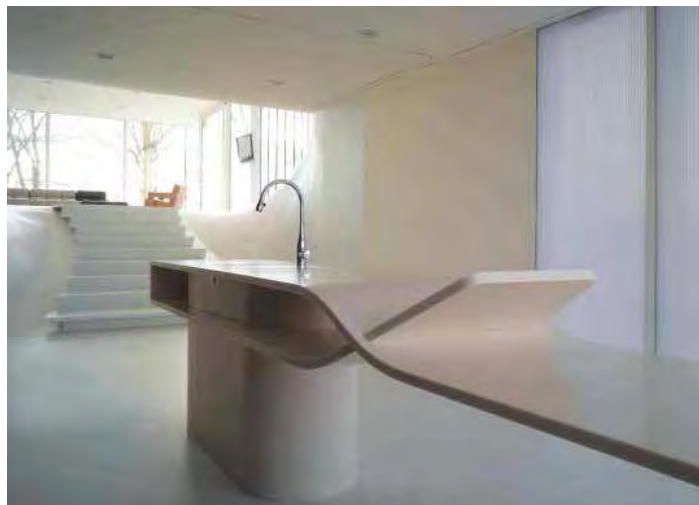


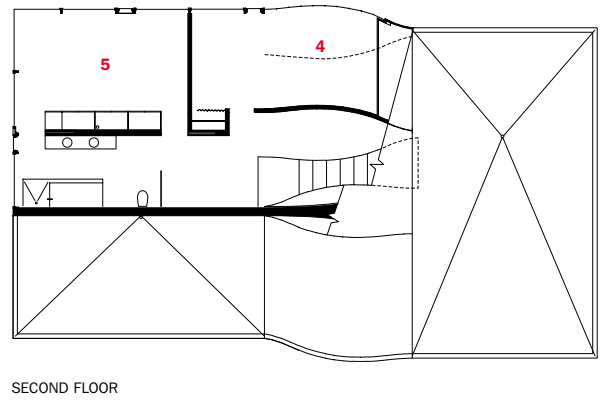
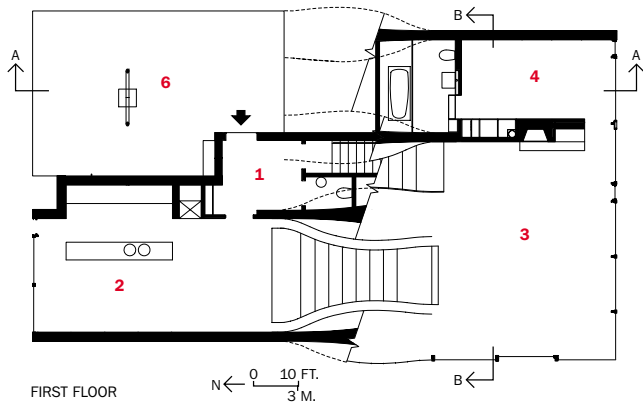
film *Diamonds are Forever*, this stair and living room should be the place where the Amazonian bodyguards cavort with James Bond, rather than John Lautner's Elrod House (1968), which was the setting in the original film.

On the upper level, another *coup de théâtre* awaits, a bedroom for the couples' son that takes the form of a clam shell with a sloping ceiling and floor lined in dark-brown African wenge wood. The bed—not yet installed—will project as a flat plane from the wall and floor. (The girl's bedroom, more conventionally configured, comes with an amoeba-shaped bathroom.)

How does a contractor go about building such a structure, especially where twisted and curved surfaces meet planar volumes? "Not easily," anyone familiar with U.S. builders' predilection for orthogonal wood-frame houses would reply. Using computer modeling, van Berkel and his team, which included Robert Silman Associates as the structural engineers, went back and forth with several variations on the parti to come up with a design that could be realized by a local builder. Van Berkel, used to European construction techniques, had figured that much of the house, especially the curvy core elements, would be concrete; the rest, steel. While he and the client found a local builder game enough to take on the job, the methods turned out to be more ordinary: A hybrid structure of steel studs and framing elements along with wood rafters, joists, and studs, plus a

From the entrance level, one can ascend the sculptural stairs to the living room (above) or enter into the kitchen/dining area (below).





1. Entry vestibule
2. Kitchen
3. Living
4. Bedroom
5. Master bedroom
6. Parking

UNStudio's Ben van Berkel wanted the "box to meet the blob" (above) in this house, as realized on the exterior. The strongly

sculptural stair, with a sharply pleated profile (below), loops up from the ground floor to the living level and then to the bedroom level.



The voluptuous, plastered stair core twists up to the bedroom level, where the glass-walled master bath opens up to the view.



concrete deck and foundations, give this house its zoomy, 21st-century look.

Five standardized, prefabricated, single-curved steel panels (instead of poured concrete) lend the interior spaces their distinctive shape and helped keep costs down. At the same time, the steel in the cantilevered bedroom floor (partly supported by the carport's V-shaped welded-pipe columns) and the wrapping of the curved panels around metal-pipe columns turned this into a very customized construction process.

As for the exterior walls, concrete is sprayed over the frame and painted a rich, earthy brown, with certain areas filled in by translucent polycarbonate panels. The glass window walls are tinted gold, rather rare in noncommercial buildings. "We wanted the house to pick up the color of the leaves," says van Berkel. "I experimented with different kinds of glass, looking for one that would mirror the landscape," he explains. Although gold reflective glass, which dominated sunbelt skyscrapers in the 1970s, went the way of the leisure suit, it reveals van Berkel's bravado—or his romanticism: "Gold seems also to be most like the sky at dusk."

Where the house differs from so many of its early Modernist predecessors is in the way it doesn't try to meld with the landscape. Instead of hunkering down in the earth *à la* Frank Lloyd Wright, or merging interior and exterior spaces through sliding glass walls and outdoor decks, the living

quarters appear sealed off in a gold-and-brown envelope (though there are vertical operable windows). The house presents itself as an autonomous, high-design object, in the spirit of Le Corbusier's Villa Savoye (1929).

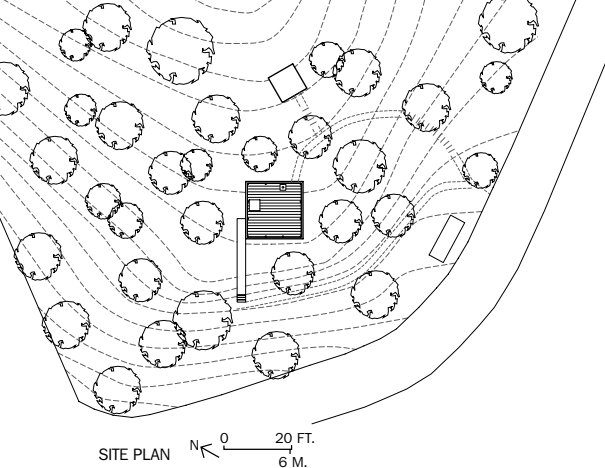
The voluptuous interior, combined with the taut rectilinearity and reflectivity of thin, flat, exterior surfaces; the Miesian use of luxurious materials; and the Corbusian detachment from the landscape speak of the architects' knowing sense of history. Their take on it, however, seems to demonstrate a certain Dutch madness, not unlike Rem Koolhaas's Mies-on-meth design for IIT's Campus Center [RECORD, May 2004, page 122]. In the past, van Berkel and Bos have taken risks, culling ideas from the past and transforming them for the present, as in their double-helix Mercedes-Benz Museum in Stuttgart, Germany [RECORD, November 2006, page 126], for which Wright's Guggenheim Museum provided the DNA.

At Villa NM, the firm's sophisticated "both/and" approach boldly manifests itself through investigations of the box with the blob, commercial with domestic materials, and high with low cultural allusions. Having an adventuresome client meant UNStudio could catapult the design of the Modern house into the 21st century. ■

For Sources, go to page 148, and Projects at archrecord.construction.com.



The thin vertical lines of the mullions and cables along the accordion-pleated stair and the soft curves of the soffit and floor (right) lend the house its ethereal quality.



The architects partially embedded their 1,100-square-foot mini-tower into a hillside, nestling the striped, semitransparent structure amid pine, cherry, and a host of other trees.



By Naomi Pollock

PROJECTS

A product designer with a young family was so taken with photos of the Ring House that he bought the place before ever visiting it. “Even the developer was shocked,” exclaims Makoto Takei, a principal of Takei-Nabeshima-Architects (TNA), the architects who designed the striking mini-tower on spec for a planned community in the town of Karuizawa, some 185 miles northwest of the Japanese capital.

As an upscale weekend enclave, Karuizawa may be Tokyo’s equivalent of New York City’s Hamptons (minus the beach), but the developer had nonetheless failed repeatedly to sell the raw land on which Ring House now stands. Among the least desirable of the community’s 318 lots, the property forms a steeply sloped valley, bound at its higher end by a road on three sides. Unlike many of the other sites, this one offers no views of snow-capped Mount Asama, and its southern exposure—the most precious asset of any Japanese home—faces the rear of someone else’s house. The developer, hoping his luck would turn if he marketed the land together with a house, commissioned TNA, a three-person firm, whose two, 30-something principals had previously worked at Tezuka Architects [RECORD, December 2002, page 98]. The developer, a youngster himself, had seen TNA’s work published in a magazine and was keen to give the newly minted design team a chance to build.

“Despite the flaws, we thought it was a great site,” recalls TNA principal Chie Nabeshima. The ½-acre property was not merely large by Japanese country-house standards, but also dotted with pine, cherry, and a host of other trees. Besides, the architects were confident they could make the slanted ground plane work to their advantage. Though code-stipulated setbacks defined the lot’s buildable area, the forest guided the placement of the structure. “We cut down only three trees,” boasts Takei, “the fewest number of any house in this entire development.”

Naomi Pollock, *RECORD’s* correspondent in Tokyo, is the author of *Modern Japanese House* (Phaidon Press, 2005).

Project: Ring House, Karuizawa, Japan

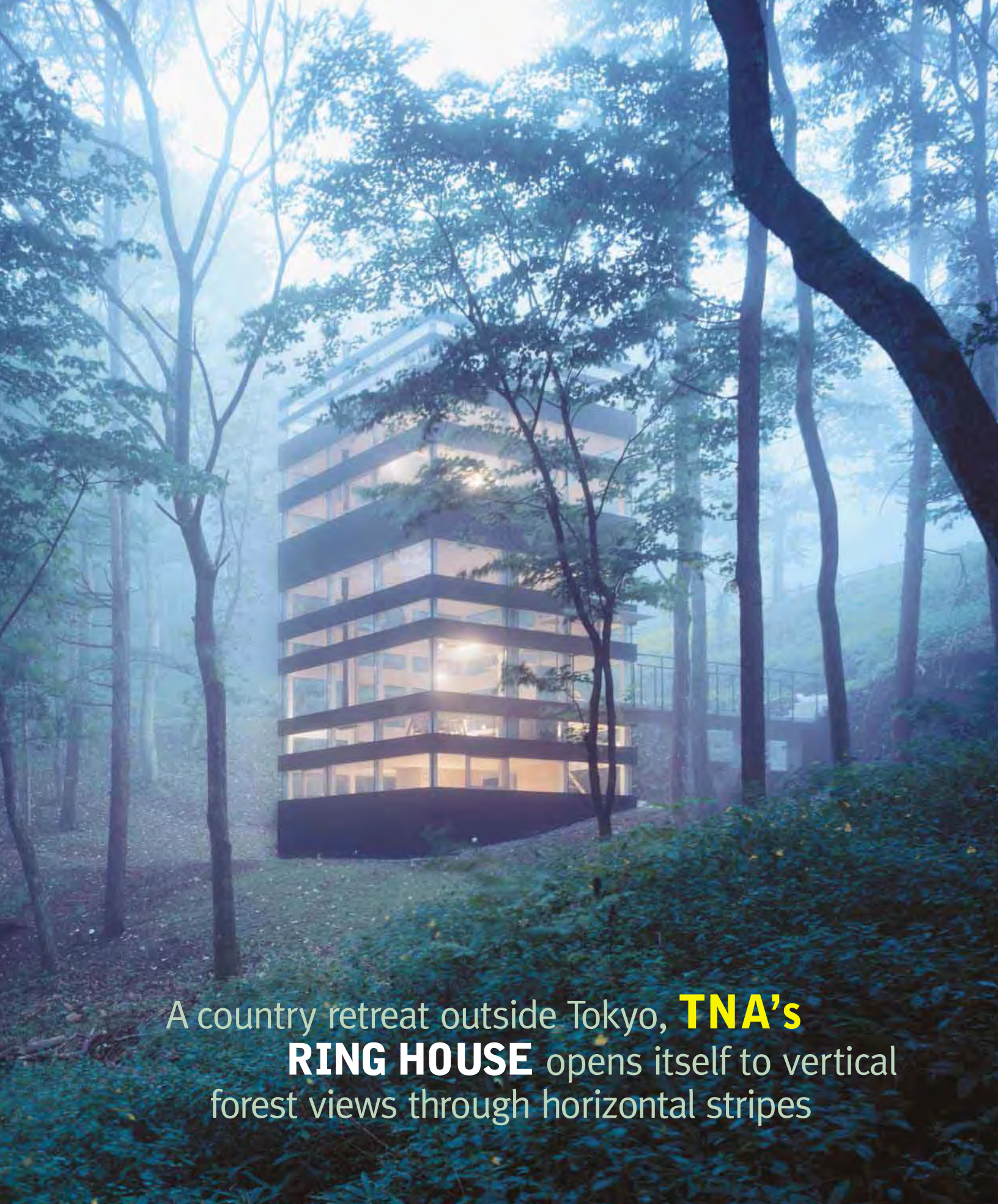
Architect: Takei-Nabeshima-Architects (TNA)—Makoto Takei, Chie Nabeshima, principals; Ryouyuke Fujitani, assistant

Engineers: ASA—Akira Suzuki, Yuuki Kuroiwa

Lighting: Lighting Architect & Associates—Masahide Kakudate

General contractor: Niitsu-gumi

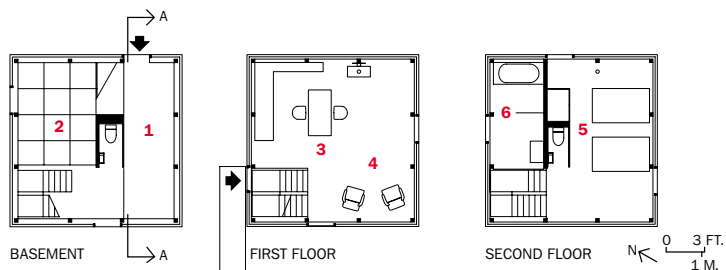
PHOTOGRAPHY: © DAICI ANO



A country retreat outside Tokyo, **TNA's**
RING HOUSE opens itself to vertical
forest views through horizontal stripes



The horizontal stripes, which form the tower's structural beams, are clad in charcoal-colored *yakisugi*, a singed cedar.



1. Doma
2. Tatami guest room
3. Dining
4. Living
5. Bedroom
6. Bath

Some trees stand just 3 feet from Ring House's outer wall. This proximity was intentional, as the architects envisioned their building—with pronounced verticality and many vantage points—as a perch for appreciating the woodland growth. "You need various heights to truly enjoy trees," explains Takei. Yet code permitted a building only 33 feet high, with two stories plus a basement.

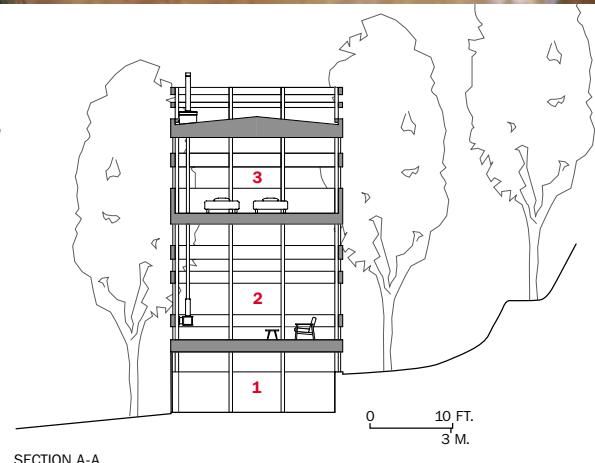
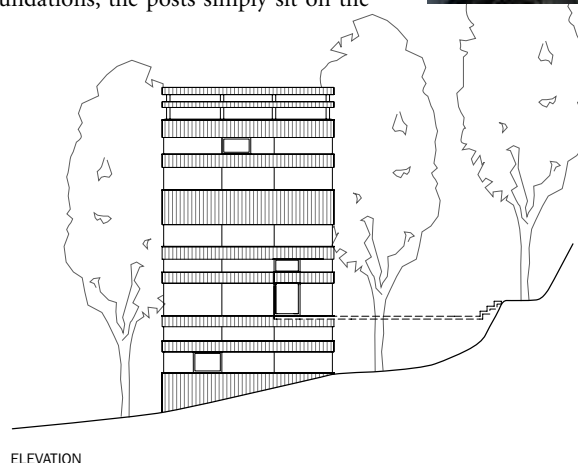
So they created a mini-tower at the maximum height, skinned in alternating bands of wood and glass—an irregularly striped sheath that evenly balances transparency and opacity, acting more like a screening filter than a bona fide barrier. As sunlight floods into the interior by day (or electric illumination glows from within the volume by night), the wrapper allows views straight through the house. With three 20-foot-square floors, including a basement partially embedded in the hillside, the architects provided entrances at the lowest and middle levels. In the basement, they put the *doma*, an all-purpose entry vestibule-cum-storage area, and a tatami-mat guest room; on the first floor, a combined living/dining room and kitchen; and on the second, the family bedroom (since pre-elementary-school children in Japan frequently share their parents' bed), with additional steps rising to the bath, where a ladder ascends to the roof deck.

Strategically placed to protect the owner's privacy, the obi-like belts of charcoal-colored wood range from 49 inches wide, to conceal sleeping and bathing areas, to 11 inches wide, for handrails on the roof. The 4.5-inch-thick bands enclosing the building required at least 12 inches of vertical depth, since they double as glue-laminated structural beams. Made of Oregon pine, these horizontal members are painted white on the inside, clad on the outside in *yakisugi*—a durable and subtly grained singed cedar, traditionally used for everything from temples to teahouses—and bolted to 12 slender columns, evenly spaced along the house's perimeter. Also of wood painted white, each column measures 5 inches square, but soars a staggering 34 feet to the top of the roof railing. Instead of rising from buried foundations, the posts simply sit on the

The 13-foot-high living area becomes dappled (and striped) with sunlight while opening up to tall views of the surrounding trees (right).



1. Doma
2. Living
3. Bedroom





basement floor, transferring the loads laterally via bolted connections to the concrete wall that anchors the house. “Usually columns and beams are in the same plane,” says Takei. But Ring House’s construction gives priority, from the exterior to the horizontal stripes.

Unlike homes with conventional outer walls, the 1,100-square-foot Ring House has everything, from kitchen counters to curtain rails, attached to the wood bands. Even the custom-designed wood-burning stove hovers above the floor, hanging from one of the timber

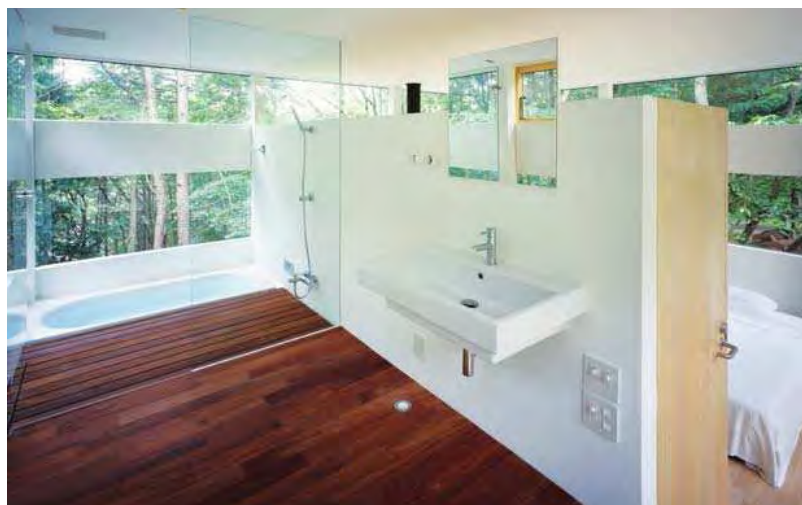
TO MAKE POTENTIALLY DISTRACTING VERTICAL ELEMENTS RECEDE VISUALLY, THE ARCHITECTS PAINTED THEM SILVER OR BLACK.

ribbons. Though potentially distracting vertical elements, such as drain pipes and downspouts, were unavoidable, the architects helped them recede visually by making them silver (or black, as with the flue) and confining them to the 5 inches, at the building’s perimeter, defined by the depth of the slender columns.

The horizontal wood stripes not only perform structural and masking roles, but also function as window sashes. Composed of two fixed sheets of glass with an insulating air pocket in between, the bands of window sit in grooves carved into the edges of the timber panels. Thin metal mullions and mitered corners join the large panes. For ventilation, each elevation has two subtly framed, operable windows. Explaining the small number of openings, Takei says, “With the building shaped like a chimney, cool air circulates naturally.”

Ring House’s limited contact with the outdoors may seem a bit extreme for a country home, and the architects’ strict prioritization of the horizontal banding does border on the obsessive. But at the same time, this house balances opacity and transparency with exquisite conceptual purity, playing on—and giving form to—*wa*, the Japanese word for both “ring” and “harmony.” ■

For Sources, go to page 148, and Projects at archrecord.construction.com.



With constant views out to the forest, and the horizontal bands masking out discrete areas of privacy, the family bedroom opens onto the bath area (above).

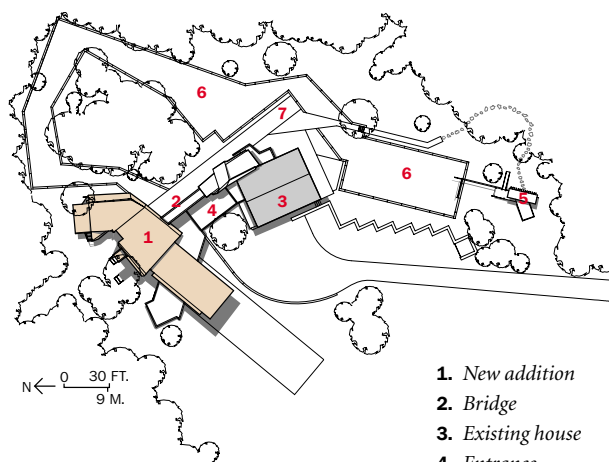
Most of the house's fixtures and components—including the cantilevered, custom wood-burning stove (opposite, right top) and the stair landings (this page and opposite, top)—fit neatly within the horizontal bands of the composite structural beams/ exterior cladding.



Brown plans to use the cantilevered, 20-foot-high "gallery," or "big cube," for entertaining guests. His sons' rooms are set back, below it.



Randy Brown draws a line in the sand for Nebraska architecture with his family's **BROWN HOUSE**, a labor of love in Omaha



1. New addition
2. Bridge
3. Existing house
4. Entrance
5. Children's tree house
6. Garden path
7. Deck



A bridge connects the gallery living space to the existing house, while a lower-level hallway in the new section provides the main entrance.

By Russell Fortmeyer

Randy Brown, FAIA, treats Nebraska architecture the same way Conor Oberst treats its music. Oberst, otherwise known as Bright Eyes, sings “No one ever plans to sleep out in the gutter/sometimes that’s just the most comfortable place” in his 2005 song “Road to Joy,” and you can’t help but sense the same theme of turning circumstance into opportunity, with a slight wink to its consequences, unfolding in Brown’s massive Omaha house perched among trees on a hilly 10-acre lot north of the city. You won’t see another house like this 12-gauge-hot-rolled-steel-clad landmark in Omaha—if not the state—guaranteed.

Once you drive the gravel road to the back of the native prairie site, the main form of the house looms over you with what Brown calls the “big cube,” or “gallery,” which contains the living room in an oversize extruded steel tube, split in two, peeled back in some locations to reveal

windows and punctured in others to allow new hallways to connect with an existing house. These few sweeping figural gestures announce the architect’s ambitions as clearly as anything: Here, architecture is a closed system of continuous materials and program for the architect to manipulate. A minimal set of materials—steel, drywall, conventional lumber, glass, plastic—and a conventional program (including four bedrooms, five bathrooms, a living room) freed Brown to make the new structure’s organization less cohesive, more improvisatory.

And so, beginning in 2003, he took his preparatory drawings and concocted the construction of his family’s house over three years. That ad hoc impulse also fed the summer work programs Brown has orchestrated since 1998 for architecture students from a handful of colleges. (Prior to this house, which he nicknamed LAB-or-a-t-ory, students contributed to his other Omaha projects.) Adventurous kids, receiving pay and academic credit, spent a few weeks each summer drawing before descending *en masse* on the house to experiment with designs and ultimately fabricate them. This breezy group effort—an alt-rock update on the Frank Lloyd Wright Taliesin camp—led to many happy discoveries, plus craftsmanship rivaling houses that cost much more than the \$495,000 paid for this one of 5,100 square feet.

Project: Brown House (or LAB-or-a-t-ory), Omaha
Architect: Randy Brown Architects—Randy Brown, FAIA, lead designer and construction manager; Nate

Miller, Ted Slate, Dirk Henke, John Gallup, Dale Leubbert, Brian Hamilton, Ian Thomas, Alex Jack, TJ Olson, Joe Vessel, summer crews (partial list)

A photograph of a modern house with a large glass window. The window reveals an outdoor staircase with dark steps and a glass railing. The house has a dark, weathered metal roof and a wooden base. Two large trees with green leaves are in the foreground, partially obscuring the view. The ground is covered in fallen leaves.

The main entrance straddles the new structure's entry hall and the bridge connecting to the existing house. The stairwell presents a choice: Climb up to the

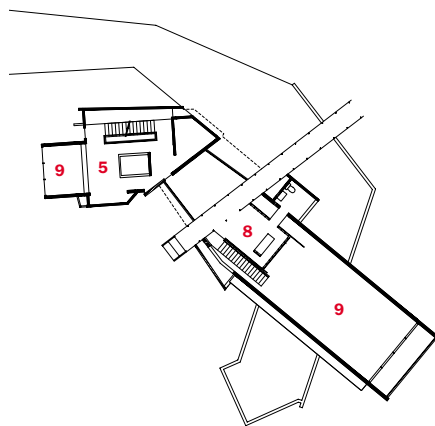
public levels of the house and across to the gallery or continue below to the childrens' floor, tucked under the "big cube" and capped with a green roof.





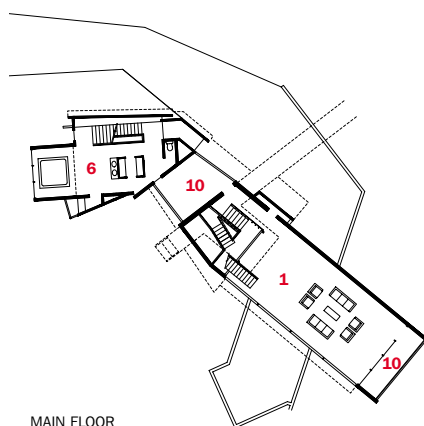
SECTION A-A

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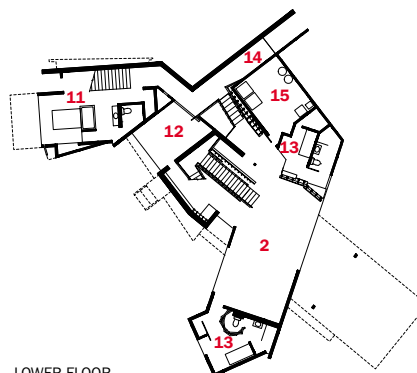


UPPER FLOOR

N 0 10 FT
3 M.



MAIN FLOOR



LOWER FLOOR

1. Gallery
2. Playroom
3. Bridge
4. Office
5. Master bedroom
6. Master bath
7. Guest room
8. Bar
9. Open to below
10. Deck
11. Guest suite
12. Toy room
13. Child's bedroom
14. Hallway to existing house
15. Mechanical

Connecting the existing house to the addition (above), the bridge, enclosed in frosted-plastic glazing, offers forest views through a cantilevered portal.

"We redesigned every piece before we built it," Brown says. "The building department didn't look at the drawings, they looked at what was there." So did Brown. When he bought the site in 1999, it came with an unexceptional two-story 1950s yellow ranch-style house that would suffice as a home for himself, his wife, and two young sons until he was ready to build the house he really wanted. Although he plans to remodel it, the yellow house, now in use

for its kitchen, connects to the new structure via two hallways: a bridge from the main living floor to the "big cube" and an on-grade hallway leading to the children's bedrooms, a playroom, and a guest suite, all on the lower level, and a rear stair up to the master suite, on the third floor. You enter this bipolar house through a lower hallway that shares a foyer with a staircase leading up to the bridge. From this central pivot point, the interior splays into an almost bizarre configuration of spaces, with an uncannily disjointed plan, that has the effect of decentering you as you walk through it. The project defies simple reading, laying bare the inadequacies (and frustrations) of a mere description of a processional experience. Understanding the house is best left to reading its plan and section (or better yet, its model, which more than anything guided the house's evolution). Like Peter Eisenman's deconstructed house projects, Brown's building exposes the subjective conditions of what we might call *houseness*, but unlike Eisenman, who largely concerned himself with deliberate misreadings of architecture's conventions as deployed in residential work, Brown uses these fissures in understanding to implement a schema of intricate, resourceful craft. Many of his details, such as wood-slat screens surrounding the children's bedrooms, emerged from intensely focused work by his students—the roadies to Brown's rock god.

Unlike an academic architecture of overconsidered, underproduced gimmicks, Brown's idea for the house—its system—was allowed to



bend to the improvisatory will of his team of constructors, providing a nuanced critique of how we actually produce architecture today. And it opened Brown to hidden opportunities.

In simplest terms, the exterior functions as a single-skin container. All seven levels of the house connect through various vertical and horizontal passages, although the structure officially qualifies as having only three floors and a mezzanine (as if it matters). Once the steel framing was complete, Brown recognized more possibilities for spatial invention. The master bedroom, originally planned as one level, spread out with its sleeping area above and a study on top of that, leaving the bathroom to itself with a double-height ceiling over the tub—a void created by pulling the bedroom floor away from the outer wall. The office's wood desk plate distorts to become the headboard of the bed below. “*Continuities*,” Brown would say. All three areas of the suite take advantage of northwest views through giant steel-framed windows (fabricated in situ) into a preserved forest of walnut, oak, and poplar trees.

Whereas the master bedroom responds vertically to the site, the double-height living room (or gallery), encased within the big cube, on the fourth level, stretches horizontally toward the prairie horizon. A wet bar emerges as a small mezzanine, its one-by-two wood slat surface integrated into a steel staircase beneath it. Both the master suite and gallery adhere to Brown's minimal material palette—slatted wood on the bar, maple on the floors, acres of white drywall and glass—shifting the focus to the views out.

While most of the individual rooms share this serene, almost contemplative use of the house's forms and materials, each circulation area develops a different spatial and material logic. Three-quarter-inch, frosted-plastic glazing wraps the bridge connecting the gallery's mezzanine to the existing house. The folded-steel stairwell down from the gallery to the chil-

The gallery (above) includes a mezzanine bar (right) clad in wood slats. Perimeter vents for heating and cooling the gallery mimic the slight reveal between the walls and ceiling.

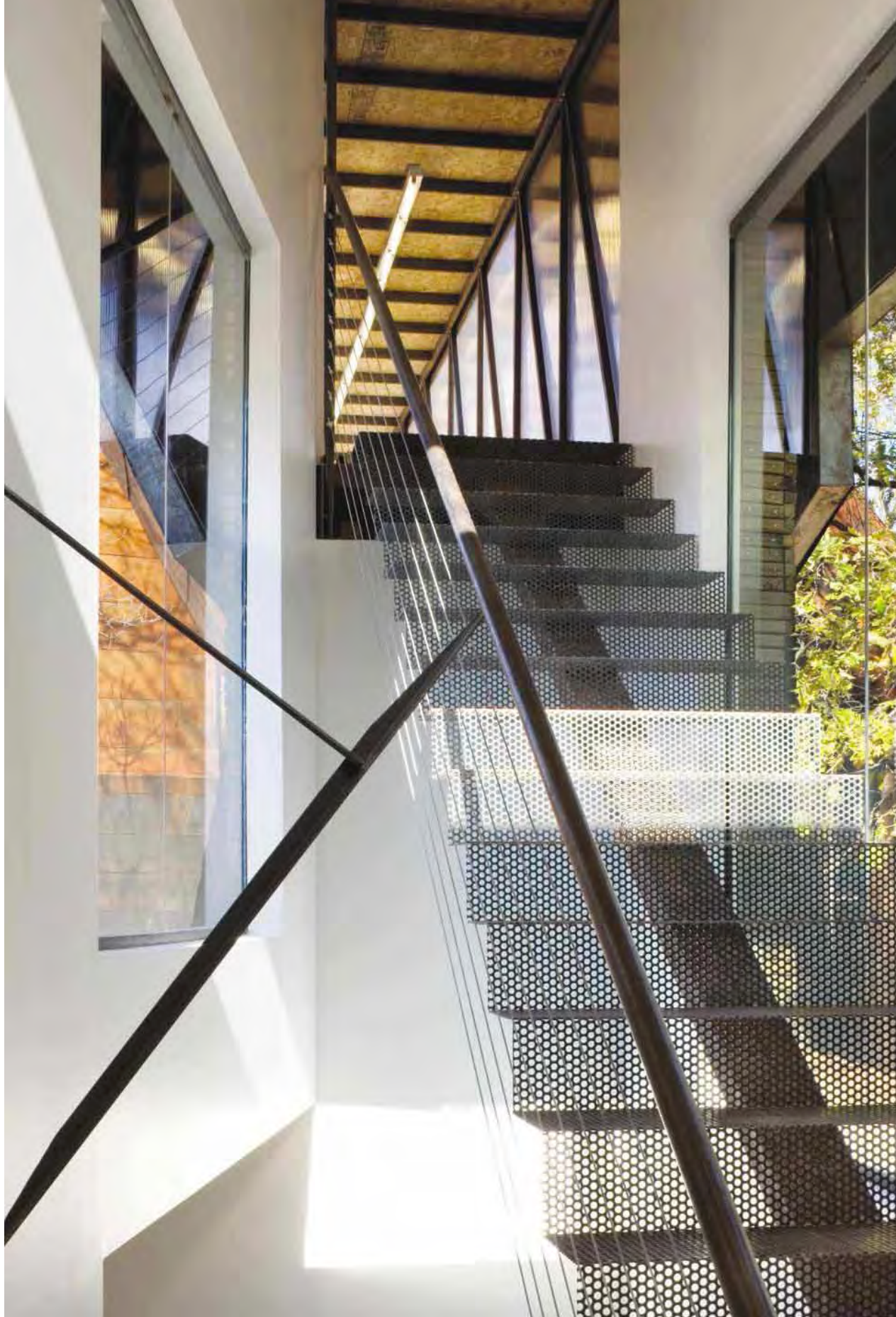




The master suite forms three levels (left), with glazing elements and the desk-cum-headboard device visually unifying the space. The children's bedrooms (above) are concealed behind wood slats.

Brown says heats most of the house through simple convection currents. Manipulating the conventions of architecture is the contemporary architect's basic right, if not the core of many an innovative practice. But where do you start—or end? Why does a nest of stacked two-by-four boards, constructed of leftover scraps, encircle the toilet in one of Brown's bathrooms (all the more jarring given the smoothness of the nearby light-gray-and-white Carrara marble sink and shower)? Brown's answer: His system, with its open-ended process, allows for such unexpected gestures. He says his sons have the house exactly right: It's a playground. Omaha, if not architecture in general, needs these "playgrounds," these states of frenzy. Here, a simple material palette openly disguises a plan that obliterates the tropes of traditional Prairie architecture, ever so politely and horizontally nestled into the landscape. Like Oberst's music, this is an architecture of protest—messing with convention by defining a system only to resist it—infected with just enough of Brown's early experience in Los Angeles, as one of the late Frank Israel's students at UCLA, to hit Omaha's ground running. Oh, what the neighbors must think. ■

Brown and his crew welded the steel main entrance stair themselves (right). Visitors can choose between ascending these stairs to cross the bridge to the gallery or taking the on-grade hallway to the lower level.





Atop a jagged cliff in coastal Chile,
Pezo von Ellrichshausen sets
CASA POLI, a great concrete cube,
evoking a block of porous stone

By Diana Lind

Casa Poli is only a 30-mile drive from Chile's second-largest city, Concepción, midway down the country's coast, but it feels perched at the edge of the world: a place with limitless ocean views, a soundtrack provided by wind and pelicans, and no other human beings within eyeshot, except for local fishermen in boats, hundreds of feet offshore. Venture 45 minutes outside any major city in the United States, and you're in an exurban tangle of highways, but here, half the roads remain unpaved. In the States, a weekend house such as a quick jaunt from the city would mean high prices for land and construction, yet here, Pezo von Ellrichshausen Architects (PvE) built almost 2,000 square feet for \$63,000 dollars.

But if the Coliumo Peninsula, on which Casa Poli rests, sounds too idyllic, the truth about its development should be told: On the bay side of this landform, construction cranes are busily erecting weekend retreats for city residents. Only the Pacific Ocean side has remained largely uninhabited, and mostly because many people consider its terrain less suitable for building. Of course, that could change now that word has gotten out about Casa Poli. (The house garnered first prize at the

Diana Lind is New York-based writer. Her forthcoming book on new architecture in Brooklyn will be published by Rizzoli in 2008.

Project: Casa Poli, Coliumo Peninsula, Chile

Architects: Pezo von Ellrichshausen Architects (PvE)—Mauricio Pezo,

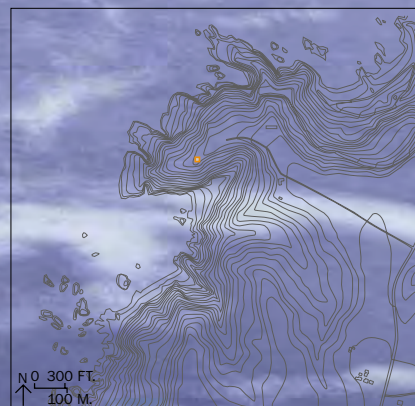
Sofia von Ellrichshausen, principals

Engineer: Cecilia Poblete

Lighting: Alberto Silva

General contractor: PvE

Perched atop a 200-foot cliff, the house faces the Pacific Ocean.





2006 Santiago Biennale, where its architects, Mauricio Pezo and Sofia von Ellrichshausen, a married couple, won the Best Young Chilean Architects Award.)

The pair found this piece of pristine cliff through Pezo's friend and mentor, artist and writer Eduardo Meissner and his wife, sculptor Rosemarie Prim. Though the property's value had appreciated in recent years, the seller wanted to divest herself of the 2.5-acre parcel for the same price she'd paid for it long before Chile's economic boom, hoping her generosity would spur the buyers to build something more meaningful than the cookie-cutter, cast-concrete spec houses abounding elsewhere on the peninsula.

The two couples bought the land together in 2003 and at first considered erecting two houses there, but over the course of several dinners realized that neither pair would be on-site enough to warrant double construction. As they discussed the program for a single house, they began to imagine the structure serving not merely themselves, but also a larger community. "Once we decided not to build two houses," recalls von Ellrichshausen, "we knew we needed to do more and give something back to this area." They agreed to turn the house into an artist's residency during the off-season, when neither couple would be using it.

The concrete house echoes the cubic forms of the granite cliff beneath it (top). Windows, placed asymmetrically, are set back for protection from the elements (bottom). Bedroom windows face into the double-height living space and to sea and sky beyond (opposite).

For Pezo and von Ellrichshausen, whose small, five-year-old practice "started the minute we met," jokes von Ellrichshausen, the challenge was to create a house that felt domestic and comfortable, but might also inspire the abstract thinking of artists. Budget, or lack thereof, was a valuable constraint in determining the material palette.

Concrete—cheap, reliable, and low maintenance—served PvE's needs, with the toughness to fend off formidable elements. At this site, the sun beats down almost 15 hours a day at the peak of summer, and a strong, southerly wind races continually over the cliff year-round. (A recent storm tore apart a neighboring prefab house.)

After considering siting the house some 300 feet back from the precipice that drops 200 feet down to the ocean, the architects picked a more dramatic and less sheltered spot: on the parcel's flattest area, near the land's edge, with uninterrupted 360-degree views. Even if the surrounding tracts, where cows currently graze, are ever developed, they reasoned, this high vantage point would still claim unblocked views.

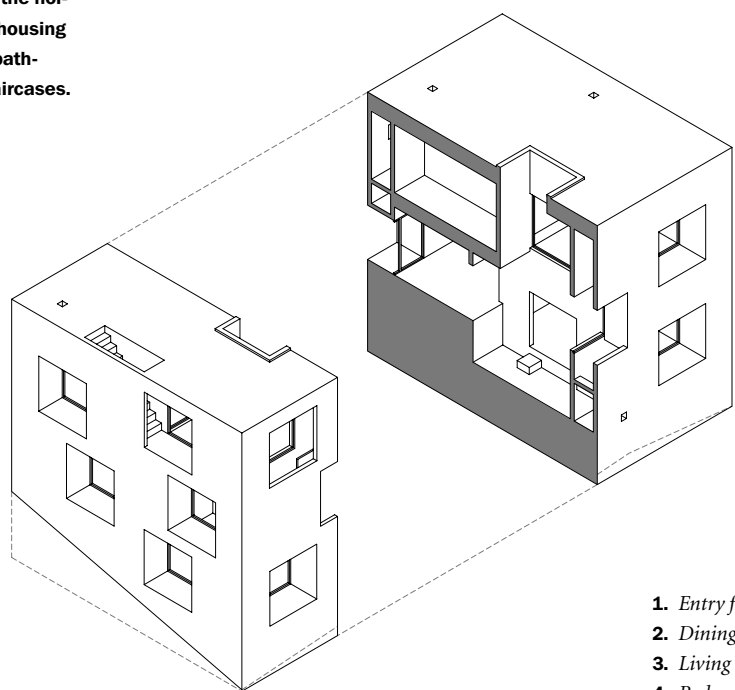
Of course, the landscape was just one factor influencing the architectural decisions. In a region where shingled salt boxes and concrete shacks typify the previous generation of weekend homes, a glitzy, high-tech residence would have seemed glaringly out of touch with the vernacular architecture and social mores. Instead, a local building crew—wielding one small mixer, four wheelbarrows, and scant background in Modern architecture—completed the cubic, 1,937-square-foot, board-formed concrete house in 18 months.

The formwork left the concrete with a rough-hewn surface that gives the otherwise spare construction a textural richness—a handsomely imperfect, striated motif. PvE found inspiration from various sources, including the starkness of Adolf Loos's work and, Pezo recalls, from objects that "aren't consciously designed." From a distance, Casa Poli conveys a distinctively less-than-deliberate quality, evoking an ancient ruin. But the intent of the architects soon reveals itself in the way the structure sits atop its granite peak, as if its ideal, cubic form had evolved from the cliff's jagged shards.

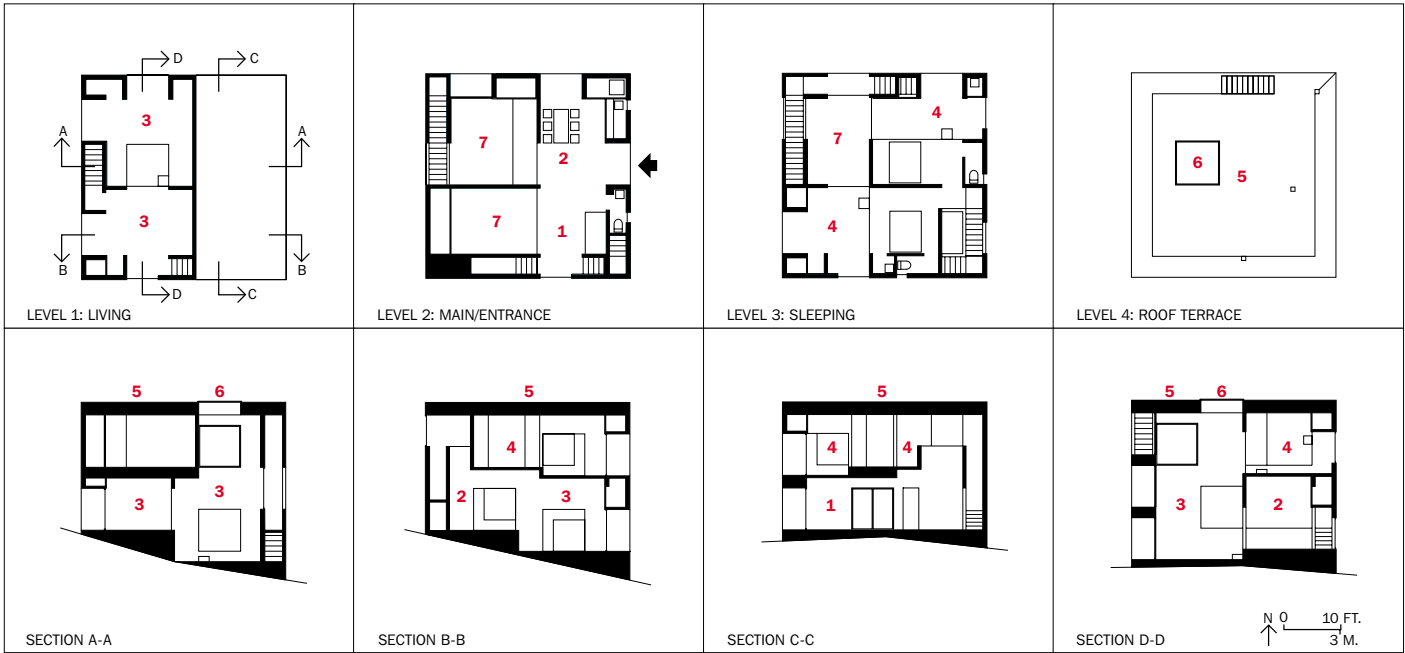
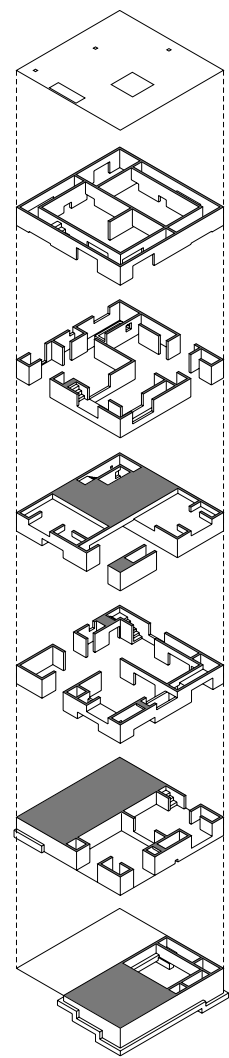
The house, taking its name, Poli, from the Greek for "many," features repeated shapes. Its 20 windows, all square and mullionfree, vary



Viewed from the outside, the staggered windows hint at the varied split levels of interior space (below). The floor plans (bottom) show the hollow perimeter housing closet space, bathrooms, and staircases.



- 1. Entry foyer
- 2. Dining/kitchen
- 3. Living
- 4. Bedroom
- 5. Terrace
- 6. Skylight
- 7. Open to below





The architects use the main living area (above and far left) for a variety of purposes, including exhibitions during the off-season, when the owners are not in residence for weekend getaways. This space features three separate levels, all opening outdoors through 6.5-foot-tall windows. Stairs to the rooftop terrace are hidden in a hollow perimeter space (left).



Windows frame
“swatches” of the land-
scape, abstracting
them in places, while in
others creating perfect
vignettes of surf, land,
and sky (opposite).

The simple furniture,
designed by PvE, per-
forms multitasks, such
as providing for casual
seating or dining (below
left). The skylight,
along with 20 windows,
fills the double-height
main living space with
sunlight (above).



The architects trans-
formed wood boards,
used during construc-
tion, into closet doors
and shutters, all
painted white (left).

from paperback-book-size punctures, with flush glazing, to 7.3-foot-square openings, with the glass set back more than 3 feet from the face of the building, forming entryways on the ground floor and balconies on the second. Staggered at different levels, rather than arrayed in strict bands, the windows hint at the interior's split-level floor planes, which give the main living space three tiers and provide the bedrooms, located upstairs, with sunken seating and observation areas.

Not surprisingly, the owner-couples, who visit Casa Poli on alternating summer weekends, spend much of their time here simply looking out at the framed vistas, culled from the vast landscape. The patchwork of windows—with several heights visible at once from multistoried spaces or across the split levels—suggests an array of postcards with flat, abstract images of the sea and terrain. At the same time, the large apertures give the sense of a house virtually inhabited by the landscape.

Effectively thickening the perimeter wall, while providing a buffer against the elements, a hollow layer of closets, bathrooms, and staircases lines the cube's outer shell. Sliding partitions, made of the wood from the concrete formwork, are cleverly recycled as closet doors, painted white. The wood and the concrete carrying its imprints match seamlessly,

THE PATCHWORK OF SQUARE WINDOWS SUGGESTS AN ARRAY OF POSTCARDS WITH ABSTRACT IMAGES OF THE SEA AND LAND.

adding ingeniously to the house's dialogue between positive and negative forms or spaces. The wood panels also serve as interior shutters, allowing the owners to close up the cube for the week.

From the bedroom windows facing into the main living space, which rises to double height, you get complex, oblique views through, into, and out of Casa Poli. The house's box-within-a-box-within-a-box layout—a skylit, off-center light well within the living core, in turn surrounded by a service perimeter—is revealed by these sectional views. Yet the horizontal and vertical layering of spaces always keeps some corner hidden. Engaged by this seemingly infinite supply of tableaux, you get the feeling of never occupying any particular level or quadrant of the house. (Imagine inhabiting one of M.C. Escher's impossible structures—another influence on PvE—and you approach this sensation of endlessness).

Just as the multitiered kitchen, dining, and living areas blend together, fluidly morphing in function, the furniture, designed and fabricated by the architects, also performs multitasks. A couch that looks like a built-in fixture, for example, actually opens into four coffee tables. The owners have intentionally left the interior sparsely furnished and uncluttered; likewise, they never leave behind clothes or personal effects. This way, visitors—whether artists in residence or the owners themselves—experience the house as their own and no one else's. (Already a handful of international painters and sculptors has taken turns using the place as a studio during the winter, and government funds have helped pay for exhibitions and other arts events in the space during the spring.)

The absence of boundaries between most rooms leads to a pleasant lack of structure for time spent at Casa Poli. A day might begin with picking *boldo* leaves, a mintlike herb that grows all over the cliff, to make tea, followed by a leisurely hike down a footpath to the rocky shoreline where sea lions rest on boulders, or to a cave where the ocean's tide rushes in, making the loudest noise all day. But this visitor was just as happy to sit on the grass staring at the house, then lounge inside gazing out, finding ultimate enjoyment in contemplating the sheer beauty of the building and its remarkable site. ■

For Sources, go to page 148, and Projects at archrecord.construction.com.

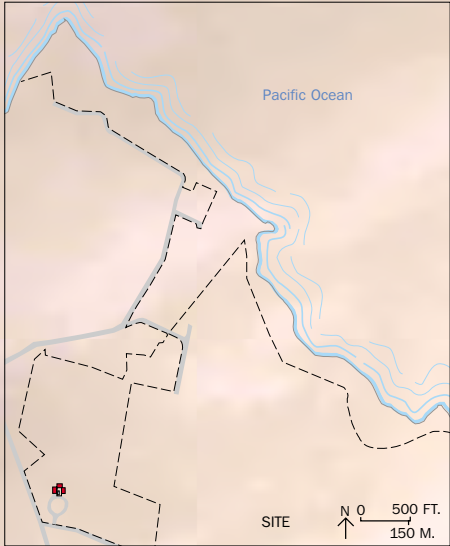


James **Cutler** crafts an ocean cottage,
OHANA GUEST HOUSE, for a windy
and lush site at the end of the road
on Hawaii's Big Island





The Ohana Guest House occupies one of three lots in a 75-acre compound. Set near a former sugar mill in the community of Niulii on the Big Island of Hawaii's windswept north shore, the coastline property lies within a protected conservation zone.





By Robert Ivy, FAIA

A house near the end of the road holds infinite promise. And here, the architectural stakes rise when the route turns past the northern, windward tip of the island of Hawaii, arriving finally at the blustery, sloping site of a former sugar mill. How to respond to such a heroic natural setting?

The Ohana Guest House at Niulii offers a contemporary illustration of the Wrightian notion of organic architecture, in which “the whole is to the part as the part is to the whole.” Take the defining instance of a detail in this windswept house, in which flitched metal supports slice into ovoid wood columns, then cross brace between uprights. Structural integrity—literally holding things down, not mere ornament—underlies the design of this singular joint and, for that matter, the entire house. “Lacing the roof to the massive earth elements with metal,” as Ohana’s architect James Cutler, FAIA, puts it, was essential to creating a viable structure on this particular site.

The wind, unseen but ever present on the Big Island of Hawaii’s lush north coast, helped inform the building’s shedlike shape. Designed to withstand 80-mile-per-hour sustained gales, the pitched roofs reflect the angle and direction of the prevailing trade winds, which blow in both rain and shine—now clearing, now gusting again.

Set on the clean brow of a 75-acre estate composed of three distinct parcels of land, the guesthouse (*ohana* means “extended family”) crowns the hillside site, which drops to spectacular oceanfront conservation property graced with historic, spiky Hala trees, used by native

Hawaiians for weaving baskets and textiles.

After the parcel had provided decades of service as a casual town dump, the current owners, who have taken a position as stewards of the land, set about planning a home on the full acreage, and embarked on six years of manual cleaning (large equipment is banned by local ordinance) to clear the land of buried detritus. With the site finally cleaned up, three buildings, including a private residence for the owners, a retired executive and his wife, will form the ensemble, which is still in the planning stages by the client and Cutler, with only the guesthouse built so far. While solitary in its siting and primary views out to the sea (about a mile away), the guesthouse rests on a lot, which stretches toward the ocean, where it abuts a community of modest homes.

Defying the Wrightian dictum that a house should be “of” but not “on” a hill, the owner asked the architect literally to raise this house on a plinth at least 2 feet high: The additional elevation provided her with a sense of comfort, particularly for the sleeping spaces. Hawaiian precedent lay in the *heiau*, a massive raised stone platform, typically used for religious purposes. Here, Cutler used a type of lava stone called *a’a*, acquired from the nearby mega-property of Parker Ranch, to form a base rising from

Project: Ohana Guest House,
Hawaii, Hawaii

Architect: Cutler Anderson Architects
—James Cutler, FAIA, principal;

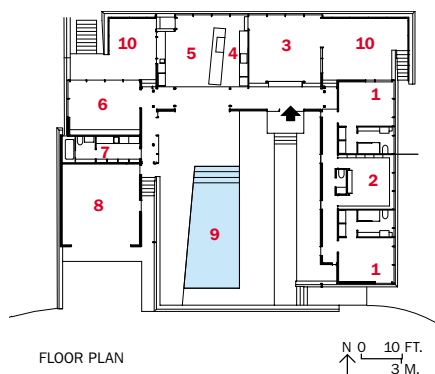
Janet Longenecker, Hiroki Kurzumi

Engineer: Jerome Madden III
(structural)

General contractor: Calyton Turnbull



Modest homes lie over the hill's brow, where the cedar-and-glass Ohana House rises from a lava-stone base (opposite). With pitched roofs angled for wind protection (this spread), the U-configuration (this page, and plan) shelters the pool.



- | | |
|------------|-------------|
| 1. Bedroom | 6. Media |
| 2. Library | 7. Laundry |
| 3. Living | 8. Garage |
| 4. Kitchen | 9. Pool |
| 5. Dining | 10. Terrace |





Steel supports (left) tie the structure down to the lava-rock base. Custom details include rolling doors (below left) that open the walls to wide Pacific views, as in the kitchen/dining area (above).



3 to 5 feet on the sloping site, lifting the living quarters from the ground plane and securing this shelter to the earth.

Not just the gusts, but all the elements helped dictate the form of plan. The U-shaped design encircles a linear pool, which faces the southerly sunlight, shielded from the windswept outer elevations. With the house thus anchored and protected, transparency from myriad expansive windows characterizes the rest of its construction, with clerestory windows admitting light and air to interior corridors. Gentle breezes circulate freely from exterior to interior passageways, bringing in outdoor scents and sounds. The permeable residence avoids auxiliary mechanical systems, relying completely on ambient heating and cooling. (Only a small library has a heating system for chilly days.) Light and views open in a 180-degree expanse from the mythic Pololu Cliffs, a few miles away, through operable glass jalousies, screens, and doorways out to the sea.

While the owners will ultimately trade their guesthouse quarters for a permanent home, Ohana House will serve them as a primary residence for several years; it therefore reflects their personal interests, with ample space and provision for cooking and reading. Neither the husband nor wife wanted the ubiquitous “great room,” so the architect separated living and kitchen areas into discrete, yet flowing spaces. Between the house’s democratically equal bedrooms, a small library provides a quiet place for reading.

On the interior, simple detailing pared down to workable neces-



Metal cross bracing, as in the kitchen (above) and corridors (left), helps stabilize the roof structure for high winds and seismic events. Eucalyptus paneling and cabinetry, along with stone floors, add warmth to 16-to-18-foot-high passageways (left).

sity reinforces the sensuous materials. As in other Cutler-designed projects, wood features large in the palette: Tamarind floors, a species introduced into the islands in the late 18th century that has the richness of cherry, and 300 panels of lighter Eucalyptus wood, both typical of the tropical environment, invite visitors to remove their shoes or run their hands along the smooth surfaces. To insure careful assembly, each board was numbered and installed sequentially. In addition to structural bracing, custom steel hardware, some with exposed though refined rolling-wheel mechanisms, as in the sliding doors and panels, renders the house like a working machine that can be boxed up and stored when not in use.

As is typical of Cutler, he got to know the site by shooting the grades himself, much the way an artist “sees” through the act of drawing. Then came the architectural drawings. The clarity and apparent simplicity of the 2,600-square-foot house evolved from his high degree of personal engagement: The finished work required at least 30 site visits by Cutler during construction (trips necessitated not only by this house, but by another in the works nearby) and more than 220 individualized detail drawings. Rather than overwrought, the resulting Ohana Guest House seems honed, pared down to essentials, organic in a Wrightian sense, and windswept, married to the place where it resides and the people it protects. ■

For Sources, go to page 148, and Projects at archrecord.construction.com.

Oak treads spiral up from the living room to a glass-floored mezzanine. A retractable ladder (not visible here), attached to a steel pole, invites ascent to a belvedere viewing deck. Wren's church (opposite) was originally entered through the base of the tower. The main sanctuary was destroyed in World War II, leaving only an outer shell.



Boyarsky Murphy slips an 11-story home into the tower of **CHRIST CHURCH** in London

By Raymund Ryan and Sarah Amelar

Christ Church was one of four dozen iconic churches erected by Christopher Wren in the City of London after 1666, when the Great Fire annihilated much of the famous Square Mile—a world center, then and now, for trading and banking. Close to Wren's St. Paul's Cathedral, with its spectacular dome, the tower of Christ Church has recently, almost surreptitiously, been converted by Boyarsky Murphy Architects into a remarkable residence at the heart of the capital.

Having suffered almost complete destruction by German bombing during World War II, the nave of the church remains a ruined carapace surrounding a roofless void, now a Memorial Rose Garden. But the tower, constructed from blocks of Portland stone, survived. (It was partially rebuilt in the 1950s to stabilize the structure.)

The woman who chose to commission an 11-story “flat” inside this great steeple was not Rapunzel herself, but Kate Renwick, who had grown up in the States and Ireland. A widow and mother of two college-age sons, she had held high office at the investment bank of Goldman Sachs.

Raymund Ryan is curator at the Carnegie Museum of Art's Heinz Architectural Center.

Project: Christ Church Tower, London

Architects: Boyarsky Murphy

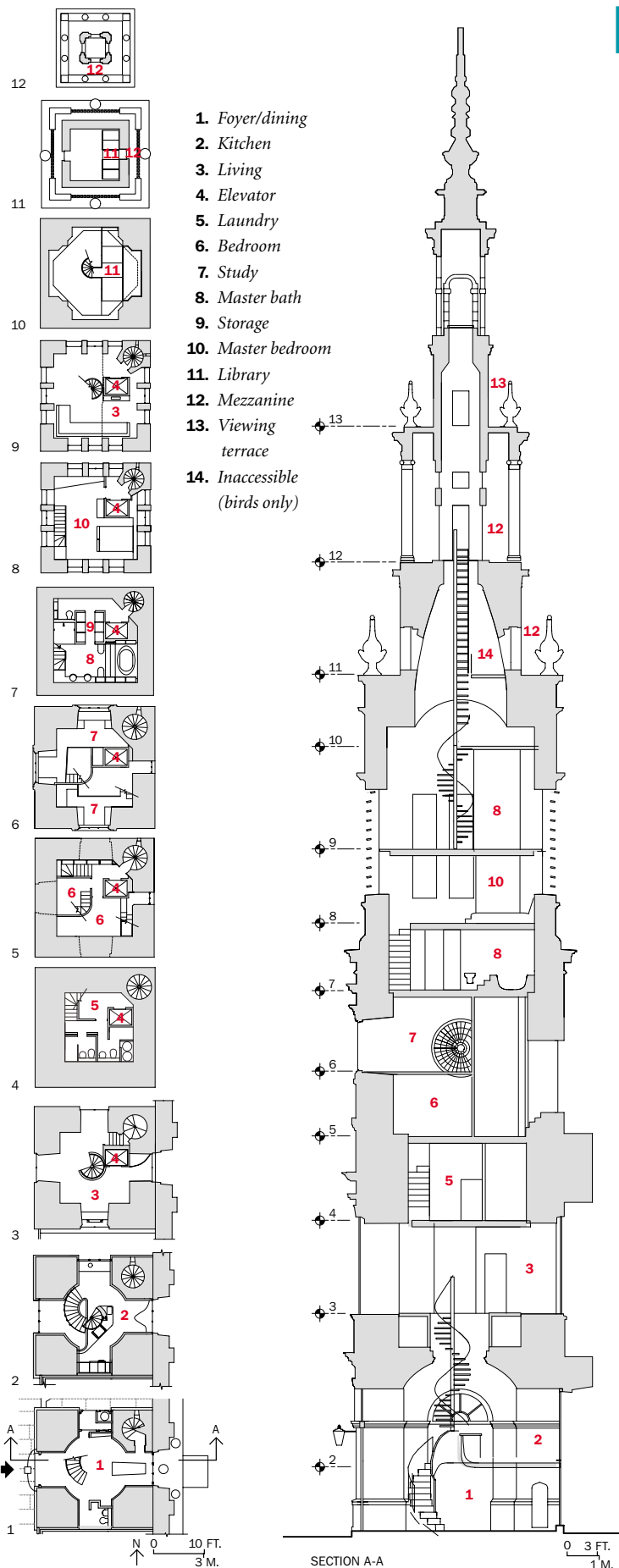
Architects—Nicholas Boyarsky,

Nicola Murphy, partners in charge

Engineers: Alan Baxter & Associates,
Greig Ling (structural); McDonnell

Langley, Max Fordham (m/e/p)

General contractor: KoruBuild





The architects were advised against cleaning, and potentially damaging, the exterior—now juxtaposed with the entry hall's sleek, modern spiral stair (1) of polished limestone with a curving glass balustrade (2, 4).



After retiring from work in this very neighborhood, London's financial district, she happened to spot a photo of the tower, up for sale, in a real estate agent's window. By then, the tower's interior lay in a derelict state.

Open to adventure and encouraged by her sons, Renwick soon envisioned a reincarnation of the great monolith. Before gaining explicit permission to convert it into a home, she engaged the firm of Boyarsky Murphy, which she had found via the Client Advisory Service of the Royal Institute of British Architects. Nicholas Boyarsky, son of former Architecture Association chairman Alvin Boyarsky, had worked with Zaha Hadid and Michael Hopkins before forming his own small firm with his wife, Nicola Murphy, in 1994. Their previous projects, with a distinctively clean-lined, Modernist bent, had included a prize-winning house in Holland Park, West London, and the charmingly named Nook, a home on Eel Pie Island on the Thames.

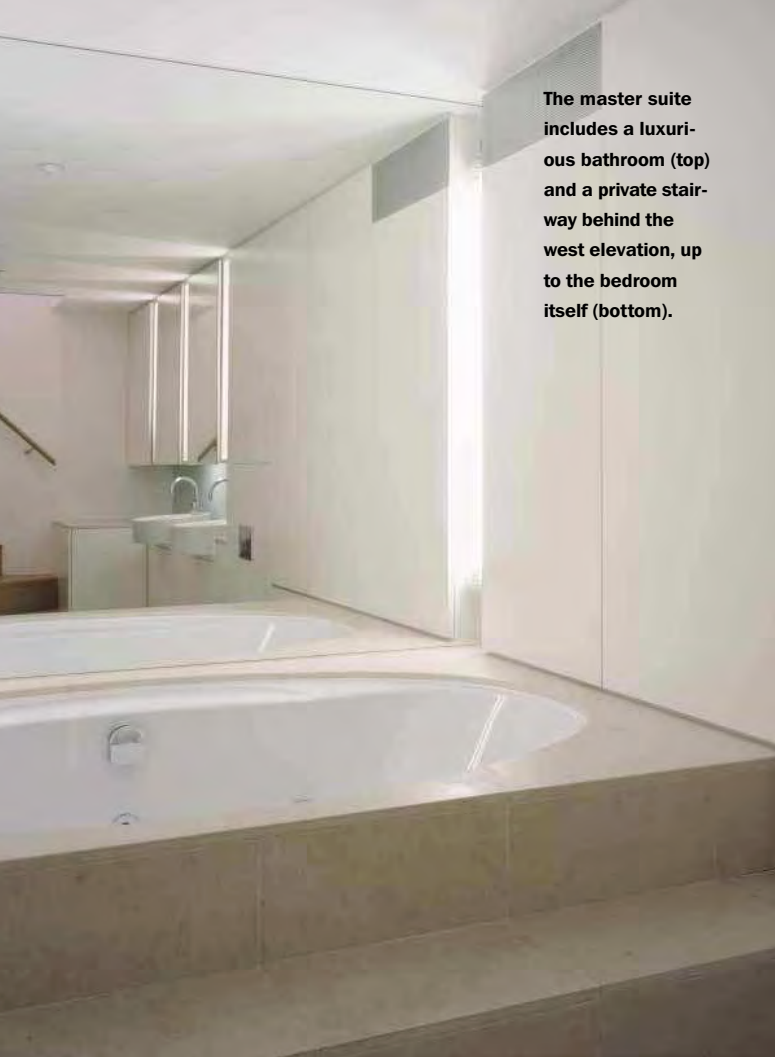
According to Boyarsky, the landmarked status of Christ Church caused significant delays, resulting in an 18-month approval process. The two most critical design problems, he notes, were "circulation and how to make the interior work in terms of light," especially as no new window openings would be allowed. From the outside, the tower gives few clues that a 2,500-square-foot residence now rises inside of it. Only new oak doors at its base offer a glimpse of the architectural intervention.

To tackle the daylight problem and squeeze in vertical circulation while creating a sequence of livable spaces, Boyarsky Murphy reworked the existing six levels to create 11 floors, including several mezzanines. From the bottom of the tower up, the massive walls become thinner (as the structural load from above lightens), allowing for slightly larger floor plates, though none exceeds 231 square feet. Naturally, a lift was needed for daily ascents into this 150-foot-high monolith, but the architects were not permitted to remove an original spiral stair at grade to insert an elevator there. Instead, they had to act with the utmost architectural discretion, slipping in an almost toylike, barely two-person lift, which first appears on the third floor. Now Wren's tight stone spiral, embedded in a tower corner, provides the secondary means of egress, certainly a fire-safety necessity. The challenging spatial compression and narrow circulation routes later led Boyarsky Murphy to assemble and build many of the house's furnishings and fittings in situ—an almost surgical process not apparent from the street.

Behind the oak front doors, the journey up through the building proceeds from a front hall that doubles as a dining area. This is the church's original entry vestibule with an elegant Greek-cross plan and high domical vault. From here, new stairs curve upward with risers and treads of polished limestone, an inner balustrade of white plaster, and an outer balustrade of glass—all streamlined and clearly modern, yet sympathetic

The tower's varied window types—today, with metal rather than the original timber mullions—include round ones (far right), now in the sons' bedrooms (5) and tall, small-paned openings on the third level (6). One stone archway (3) formerly led to the adjacent (now nonexistent) sanctuary's attic. Before Boyarsky Murphy's interventions, exposed rubble masonry lined the entire tower (near and far right).





The master suite includes a luxurious bathroom (top) and a private stairway behind the west elevation, up to the bedroom itself (bottom).



to the original architecture. The stair's white-plaster edge flows seamlessly into the balustrade and soffit of a small mezzanine above. At the top of the ascent, the architects inserted a meticulously detailed custom kitchen in the space between the winding stair and the thick, sculptural outer walls. Existing windows in arched niches open to views in the cardinal directions, giving the small kitchen area an expansive quality.

Spiraling up to the next floor, a second, more tightly wound stair has a balustrade of acrylic (as glass could not be curved to this small a radius). The third story, with space for the elevator, offers a sitting room amid tall, multipaned windows.

The next three levels form a triplex with a bedroom for each of the client's sons above their bathrooms and laundry area. This three-story zone is accessed at the tower's fifth floor, where, beside a wall of oak shelves, a staircase disappears out of view as it descends to the bathrooms and laundry. A small, double-height vestibule near the tower's center marks the entryway to the sleeping areas, each a double-height space with its own configuration of internal steps up to a mezzanine study with built-in oak furniture and axial views across the surrounding cityscape. One of the stairways is of folded steel; the other, made of oak, has a narrow alternating-riser system, occupying only a minimal patch of precious floor space.

A generous bath and built-in closet occupy the next two levels, surmounted by the master bedroom. A private staircase inside Wren's west facade and a walkway of glass lenses set in the floor connects these spaces. The ninth floor is the living room—rising 49 feet high into the former bell chamber—with its shell drywalled and its concrete floors laid with wide oak boards that are not smooth but pelleted, as in the 17th century. The architects subtly replaced exterior concrete louvers from the 1950s with a lookalike brise-soleil of Portland stone, angled unlike its concrete predecessor to bring in light and views. Juxtaposing sleek new insertions with grittier old elements, they intentionally left exposed a concrete ring beam and rubble walls, complete with graphic notations by postwar reconstruction teams.

In this light-filled aerie, miraculously close to St Paul's and just across the street from the Stock Exchange, the views of London are extraordinary. But the ascent continues where the steeple grows slender, as its stacked cubic forms approach the ornate pinnacle. Now the space available to Boyarsky Murphy becomes even more squeezed. A final corkscrew staircase, this one with open oak treads cantilevered from a stainless-steel pole, twists up to a transparent glass floor held by a delicate steel frame within the "found" octagonal space. From this private and vertiginous deck, housing a library, a retractable ladder attached to the pole leads to an upper mezzanine with a glass-and-wood floor. Those of hearty disposition can climb a second ladder to emerge from Wren's envelope into a columned belvedere, clearly visible from the exterior.

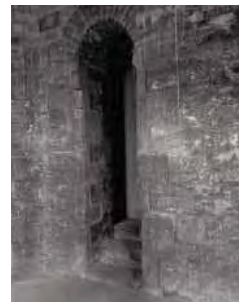
With daylight spilling in from an aperture in the tower's telescoping apex, the once-neglected and war-torn Christ Church comes alive in ways Wren probably never anticipated. With ingenious and precise insertions, Boyarsky Murphy has created a domestic world that is surely unlike any other; in some sense, a fantastic 11-story folly. Since Renwick's children are quickly growing up and heading on—and the \$2 million Christ Church conversion is now complete—she is already planning her next move. Turning into a serial renovator with a newly acquired taste for Wren churches, she has commissioned Boyarsky Murphy to transform yet another of his forlorn spires into a residence. This time, it's St. Mary Somerset, along the riverfront of London's financial district, a structure in a greater state of disrepair—tantalizingly, an even more towering challenge. ■



PHOTOGRAPHY: © ERIC MORIN (TOP AND BOTTOM LEFT)



The kitchen (above) includes counters of polished black granite and a spiral stair with a balustrade and treads of clear acrylic. The soaring living room, on the ninth floor, occupies the former bell chamber, now with new Portland stone louvers (outside the glazed French doors), angled for light and views. The 1950s louvers were of concrete (right top). An original spiral stair, embedded in a corner of the tower (far right) provides a secondary means of egress. The masonry walls are up to 8 feet thick (near right).



**Irregularly placed
cedar cladding and
angled wood piles
serve as abstract
metaphors for the
house's forested site.**



On a wooded site on Taylors Island, Maryland, **KieranTimberlake** tested a new way of building with the **LOBLOLLY HOUSE**



Mostly opaque on the three sides facing the woods (opposite), the house opens to the west (left) with views of the Chesapeake Bay.

By Clifford A. Pearson

Stephen Kieran, FAIA, likens his family's new weekend house on Taylors Island in Maryland to a duck blind, one of those three-sided shelters that hunters build to make themselves disappear in the woods or a marsh. Barklike vertical strips of red cedar clad three elevations of Kieran's 2,200-square-foot house, camouflaging it on a 4-acre Chesapeake Bay site thick with loblolly pines. While those mostly opaque sides face the surrounding forest, the fourth elevation literally opens to the water—thanks to retractable translucent hangar doors and accordion-folding glass walls that the owners can move to eliminate all separation between indoors and out.

And like a duck blind, the building—which the architect calls the Loblolly House—can be disassembled. Most of its pieces are then recyclable. Concern for the environment has long been essential to the work of KieranTimberlake Associates, Kieran's Philadelphia-based firm. But in the past few years, the practice has also investigated modular and prefabricated construction with the aim of developing faster, cheaper, and smarter ways of building. "Forty percent of the material in landfills is building debris," notes Kieran. "If you could take apart a building and sell elements from it on eBay, you could make a difference."

But most attempts at prefabrication in building construction have failed, he says, due to economics, market perceptions, and peculiarities of the home-building industry. Traditional construction methods have long been less expensive than prefab experiments, and perceived by the public as being of higher quality. In the past few years, though, the costs of on-site construction have soared, while the industry has faced serious quality concerns, says Kieran. At the same time, the quality of factory-built components and consumer interest in prefab have risen. "We're close to a tipping point," he suggests. "I think we can flip the gen-

eral perception, so that houses largely made from factory-built components are seen by the public as cheaper and better."

The one earlier example of successful industrialization in American home building—manufactured houses delivered by truck to sites all over the country—holds no appeal for Kieran and his partner, James Timberlake, FAIA. "You're stuck with dimensions and limitations determined by highway transportation rules. That's the death of architecture," Kieran maintains. "No matter what you do, you always read the single- or double-wide trailer in those homes."

KieranTimberlake saw the three-story Loblolly House as a system made entirely of off-the-shelf elements and components fabricated off-site to be assembled atop a platform (or "foundation") of wooden piles sunk into the sandy soil. Key components included so-called "smart cartridges" used to create floors, ceilings, and roof; "dumb cartridges" for the building's skin; and "blocks" that house bathrooms or mechanical rooms. All of the cartridges are 12-inch-deep sandwiches made of plywood or cement-board layers with wood studs in between. By installing radiant-heating elements, insulated microducts for air-conditioning, and wiring for power, lighting, and data, the off-site fabricator makes the floor and ceiling cartridges

Project: *Loblolly House, Taylors Island, Maryland*

Owners: *Barbara DeGrange and Stephen Kieran*

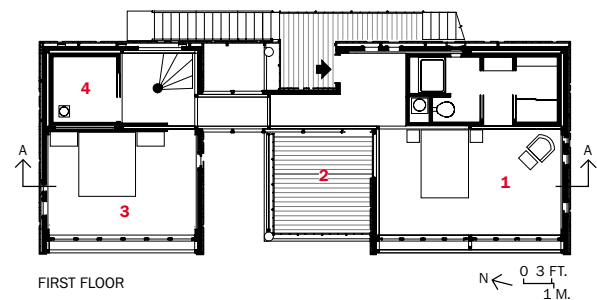
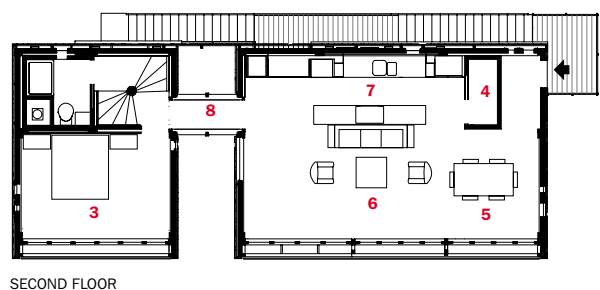
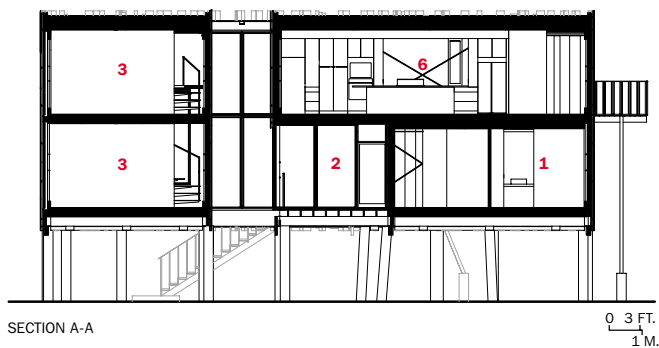
Architect: *KieranTimberlake Associates—Stephen Kieran, FAIA, James Timberlake, FAIA, design partners; Marilia Rodrigues, project architect*

Engineers: *CVM (structural); Bruce Brooks & Associates (m/e/p)*

Consultants: *Marguerite Rodgers (interiors); Barbara Seymour Landscapes (landscape)*

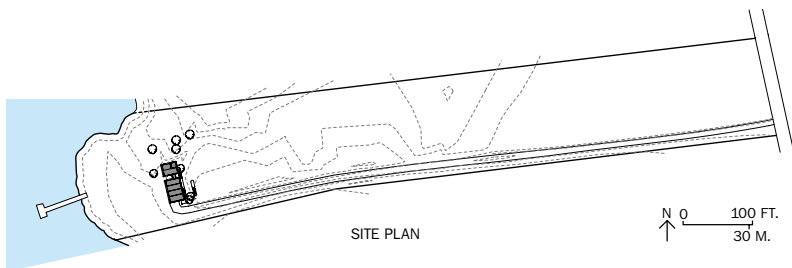
Fabricator: *Bensonwood*

General contractor: *Arena Program Management*



A small court separates the house into two volumes (above): a smaller one serving the Kierans's two children, and a larger one with the main living spaces and master bedroom.

1. Master bedroom
2. Deck
3. Guest bedroom
4. Mechanical
5. Dining
6. Living
7. Kitchen
8. Glass bridge



Four airplane-hangar doors protect the west elevation (below left and right). At the touch of a button, they can open, close, or stop at positions in between.



A clear glass bridge (right) connects the two halves of the house, spanning a garden landscaped with bamboo and gray stones.

“smart.” Wall cartridges, on the other hand, are “dumb” because they contain only insulation, vapor barrier, sheathing, and windows. Blocks embody the most complex elements of the house: complete rooms—with ceilings, walls, glazing, finishes, plumbing, power, and lighting—that can be lifted into place, then quickly plugged into utility connections already threaded through the building’s frame.

Once the builder had sunk the piles and installed beam collars, the house’s on-site construction took just six weeks, starting at the end of September 2006. To minimize damage to the fragile ecosystem (which is home to large populations of bald eagles, hawks, and water fowl), the architects arranged for the factory-built components to be delivered on an on-demand basis.

Kieran supplemented those components with off-the-shelf items, such as a German-made aluminum frame, an interior steel spiral stair, and kitchen cabinets and counters. The few elements actually built on-site included the wood piles with beam collars, an outdoor stair on the east elevation, stained-bamboo flooring indoors, and the cedar-plank siding on the three land sides of the house. After assembling the house so quickly, Kieran found the weeks it took to install just the bamboo flooring excruciatingly long.

With his project architect Marilia Rodrigues, he developed the irregular pattern of cedar siding by pasting strips representing the planks on





A floor-to-ceiling glass wall in the living/dining area (above) and in the bedrooms folds open in panels that slide off to one side.

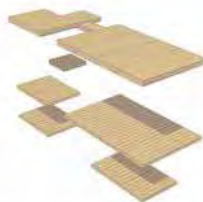
A fabricator built pieces of the house in a factory (right). The various components were then assembled on-site (far right).



1. Piles



2. Scaffold



3. Cartridges



4. Wall panels



5. West wall



A small deck (above) on the lower floor overlooks a bamboo garden on one side and the Chesapeake Bay on the other. The house

was assembled in just six weeks from a series of components (below), most of which were made in a factory in New Hampshire.

A NEW WAY OF BUILDING Kieran and Timberlake developed many of their ideas on prefabricated housing by looking at other fields, in particular the automotive and aerospace industries. In 2001, they visited a Boeing aircraft facility and marveled at the way the company's engineers built a digital parametric model that depicted every one of a 777 airplane's one million parts as a solid object and provided all kinds of information about its material properties, source, and cost. Now KieranTimberlake (and other architects) is using building information modeling (BIM) software that offers the same kind of parametric modeling. "Parametric modeling was the breakthrough that allowed us to take components manufactured at various places off-site and bring them together with a high level of precision on-site," explains Kieran. [For a detailed examination of the firm's use of BIM and the construction process it used on the Loblolly House, see *RECORD*, November 2006, page 185.]



6. Rain screen



7. Exterior stair



a photograph of the site. “We designed the house as an abstraction of the key elements found there: loblolly pines, tall grasses, water, and the western sun,” says Kieran. So the cedar boards’ varying widths and spacing echo the dappled rhythm of the forest; the green-stained bamboo flooring recalls local grasses; a two-story-high expanse of orange-coated glass set between the main volume of the house and its guest wing provides a visual jolt suggesting a sunset when light shines through it; and the two floors of living and sleeping spaces, raised one story above the ground, allow flood waters to flow underneath.

Instead of placing living and dining rooms on the lower floor, the architects put them on the upper one to capture the best views of the water. Inside, the house orients every space (except bathrooms and mechanical rooms) to the sun setting over the bay. To protect this western elevation from solar heat and glare, KieranTimberlake treated it as a piece of equipment that can open and close in three independent layers—starting on the inside with simple roll-up shades; then a glass wall that folds up in 2.5-to-3-foot-wide sections, which slide on floor and ceiling channels; and finally, the translucent polycarbonate airplane hangar doors that fold out and up at the touch of button. A 16-inch air gap between the glass wall and the hangar doors provides insulation when this “equipment” closes shut in cold weather. On a visit to the house on a sunny day in February, the 35-foot-long living room was

Stained bamboo floors and the colors of material used on furnishings in the master bedroom allude to the site’s cordgrass.

getting plenty warm by 2 p.m., so Kieran opened the glass wall and let in a cool bay breeze. When asked if he had considered a porch for this elevation, he replied, “The living room *is* the porch.”

The outdoors makes its presence felt in other ways, too. For example, a small court just 8 feet wide and planted with bamboo separates the living room/master bedroom block from a smaller volume containing guest rooms (one on each floor for the Kierans’ two grown children). A clear-glass indoor bridge spans the court, providing a light-filled connection between the house’s two halves. And on the lower floor, a small deck serves as an outdoor room.

Kieran is now talking with an unusual company that sells LEED-certified, factory-built houses about creating a version of the Loblolly House that could be purchased and built in different places. (The company is currently offering houses designed by Ray Kappe, FAIA, and David Hertz, AIA.) “The idea is to develop the house as a product,” says Kieran. “We’ll use the Loblolly House as a prototype for a more generic system.” He estimates that around 60 to 70 percent of the Loblolly House’s components were built in a factory. For a commercially available iteration, he would like to push that figure to 80 or 85 percent, which would help reduce costs to around \$250 per square foot (about half the cost of most custom homes). All of a sudden, an architect-designed house falls within reach of a lot of middle-class Americans. ■

For Sources, go to page 148, and Projects at archrecord.construction.com.



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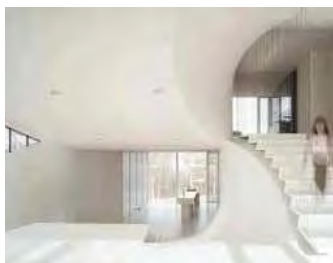
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VILLA NM

New York State
(page 98)

Sources

Windows: Duratherm

Glazing: Pilkington

Hardware: Valli & Valli

Interior finishes: Boyce Products (cabinets); Sterling-Miller Designs (kitchen island)

Wall coverings: Timourous Beasties; Bisazza (glass tile); Ridgefield Industries (raised flooring)

Furnishings: B&B Italia (fixed seating); Cassina (chairs)

Lighting: Regency Architectural Lighting (downlights)

RING HOUSE

Karuizawa, Japan
(page 106)

Sources

Structural system: Saito Wood Industry

Exterior cladding: Nakamotozourin

Windows: Naito

Glazing: Oxa Matex

Wall coverings: Tokyo Mokuzai Kigyō
Furnishings: Koutarou Nakamura+Kanakano Nakamura/plots (tables); Shinji Kodama/Sanrinsha (firewood stove)

Lighting: Kunio Satou/Lighting Crew



BROWN HOUSE

Omaha
(page 112)

Sources

Exterior cladding: State Steel;

Swanson Sheet Metal

Roofing: Firestone

Windows: Randy Brown Architects

Glazing: City Glass; Polygal

Paints and stains: Sherwin Williams

Wall coverings: Plywood Inc (paneling); Sunderland Brothers, Knutzen Tile (tile flooring); Dale Ocken Company (raised flooring)

Furnishings: Cassina Le Corbusier

Lighting: Metro Electric

CASA POLI

Coliumo Peninsula, Chile
(page 120)

Sources

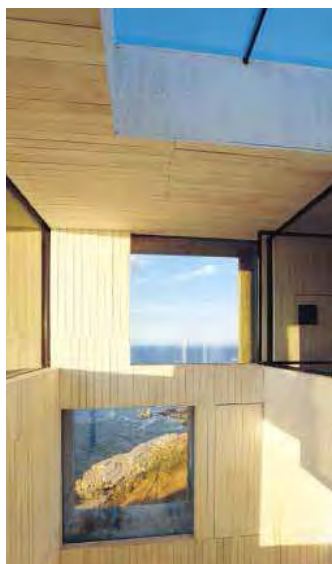
Windows and doors: Digosa

Glazing: Digosa

Hardware: Digosa

Interior finishes: Cesar Manríquez

Furnishings: Pezo von Ellrichshausen Architects; Ramón Cartes



OHANA GUEST HOUSE

Hawaii, Hawaii
(page 128)

Sources

Roofing: Taylor Metal Roofing

Windows and doors: Two Rivers Window

Lighting: Bruck (cablelights); BK (stemlights, landscape); Alco (bathroom); Translite Sonoma Art Lighting

CHRIST CHURCH TOWER

London
(page 134)

Sources

Structural system: John Atwater (wood); Sharder Glass (glass balustrades, glazed floor panels); Spiral Staircase Systems

Roofing: Able Waterproofing (metal); Paye Stonework & Restoration (stone)

Windows: Senlac

Glazing: Pilkington Building Products (glass, skylights); St. Helens (skylights)

Doors: MSJ Joinery (entrances); Hafele (sliding doors, closers)

Hardware: D-Line (locks, hinges, pulls); Hafele (cabinets)

Cabinets and custom woodwork: KoruBuild; MSJ Joinery

Paints and stains: Johnstone's;



SigmaKalon; OSMO (floor wax)

Wall coverings: KoruBuild, F.A. Firman (paneling); Stone Age, Delabole (tile)

Furnishings: Fritz Hansen, Supporto, Vitra, Cappellini (chairs); KoruBuild (tables)

Lighting: Lightgraphix (interior ambient); Erco, Kreon (downlights); SKK (task); Bega (exterior); Panasonic (controls)

LOBLOLLY HOUSE

Taylors Island, Maryland
(page 140)

Sources

Structural System: Bosch Rexroth (aluminum framing); Tripyramid Structures (stainless-steel-rod assemblies)

Exterior cladding: James Hardee Building Project

Windows: Artistic Doors & Windows; Loewen Windows

Glazing: Deglas (insulated panel); Innovative Building Products (structural glass floor)

Doors: Artistic Doors & Windows (entrances); Nanawall (metal); Wilson Doors (hangar)

Hardware: Double-Hill

Wall coverings: Solistone

Lighting: Lightolier (downlights); We-ef Lighting (exterior); G Squared (ceiling fans)



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fassina - 16

fukasawa - 6 • 8 • 10

gardere - 18

gismondi - 5

ito - 21

m. de lucchi - 3 • 16

nalbandian - 1 • 7 • 22

nigro - 3

p. de lucchi - 11

poulton - 20 • 23

rashid - 17

rezek - 4

solè - 14

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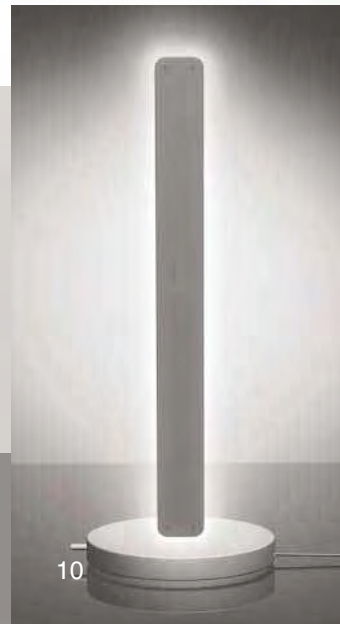
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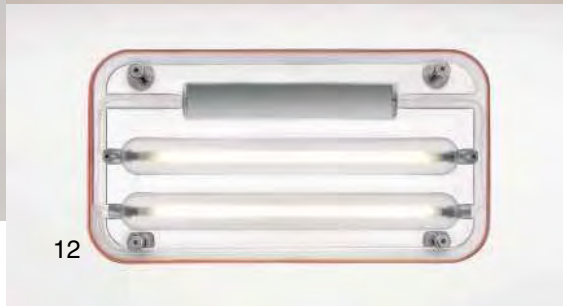
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Transformative Tools Start to Take Hold

A CRITICAL MASS OF BUILDING INFORMATION MODELING PROJECTS DEMONSTRATES THE TECHNOLOGY'S BENEFITS AND ITS POTENTIAL FOR REDEFINING PRACTICE

By Joann Gonchar, AIA

No doubt you've already heard a great deal about the digitally enabled revolution that promises to transform design and construction. Proponents say that if the industry embraces building information modeling, or BIM, it will streamline the delivery process, ensure well-coordinated documents, providing a basis for more accurate fabrication and construction. Designs will be more closely tied to structural analysis and energy simulations, producing better performing, higher-quality facilities. These will be built more quickly and at lower cost than previously possible, resulting in fewer claims, and of course, happier clients.

So exactly what is this panacea for all that ails the design and construction industry? At the heart of the new process is the building information model—an object-oriented digital representation of a building. Unlike traditional two-dimensional CAD drawings, the model is not a collection of discrete lines on the screen, but is a compilation of integrated and dynamic data that describes the functional and physical aspects of a building and its components. This model could include information such as the dimensions and structural characteristics of beams, the fire rating of partitions, or warranties for mechanical equipment.

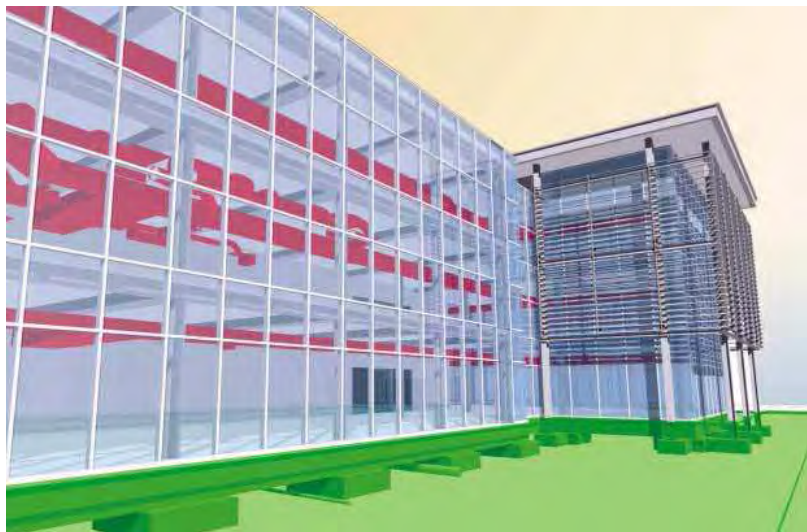
More than a new way of drafting, BIM is really a paradigm shift for design and construction. Its adoption forces examination of a host of practice and business issues, from the definition of professional roles to liability to project delivery methods. Perhaps because of these still-emerging concerns, BIM is not yet mainstream. According to the most recent American Institute of Architects' firms survey, *The Business of Architecture*, about 16 percent of firms have acquired BIM tools, and roughly 10 percent are using them for billable work. However, among firms with 50 or more

employees, just over 60 percent have acquired BIM software, and just over half are using it on billable projects. Adoption is likely now more widespread since the data, collected in the spring of 2006, is already eons old in the context of a rapidly evolving technology.

Even for large, technologically sophisticated firms, it isn't all BIM all the time. "While we are using 3D modeling on just about everything, we aren't at that level just yet for BIM," says NBBJ managing partner Jim Jonassen, FAIA.

Jonassen says the firm has been pursuing object-based design for about a decade, with just over half of its current projects using BIM. His goal is for 75 percent of the firm's projects to be using the process by the year's end.

Just how comprehensively the technology is being used varies from project to project and team to team. A whole spectrum of deployment is possible. Some architects and consultants are using BIM only within their own offices and distribute 2D background documents to other members of the team. On other projects, 3D models are shared with fabricators and constructors. Some contractors are creating their own building information models from their designers' traditional CAD drawings. Sources say that there are still benefits, even when only one member of a project team is working in a BIM environment. "If we are the only ones using the process, it still improves the quality of the product and our



The collaborative virtual process employed by the team that designed and built a Houston office building (above and below) was key to its efficient coordination and smooth construction.



CONTINUING EDUCATION



Use the following learning objectives to focus your study while reading this month's *ARCHITECTURAL RECORD*/AIA Continuing Education article. To receive credit, turn to page 162 and follow the instructions.

LEARNING OBJECTIVES

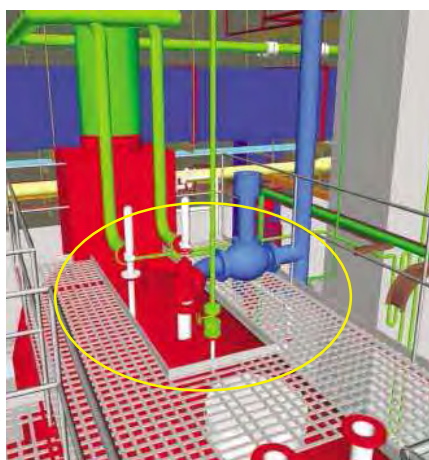
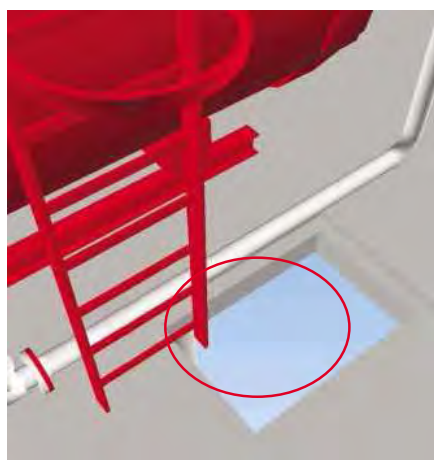
After reading this article, you should be able to:

1. Define what a building information model is.
2. Explain the benefits of using building information modeling (BIM).
3. Discuss how BIM can be used in design and construction.

For this story and more continuing education, as well as links to sources, white papers, and products, go to archrecord.construction.com.



Design and construction of a 1.2-million-square-foot hospital for London involves numerous stakeholders and an array of software platforms and tools (right). BIM clash-detection capabilities helped identify maintenance issues and hazards, such as a conflict between a manhole and a service ladder, an inaccessible valve (below three, left to right).



efficiency,” says Jim Jacobi, C.I.O. of structural engineering firm Walter P Moore. However, “You can come as close as possible to flawless delivery when all the partners in the supply chain engage,” he adds.

With large owners like the General Services Administration (GSA) jumping on the BIM bandwagon, use of the technology by all members of the design and construction team will surely grow. Since 2003, the agency has been exploring aspects of BIM, including energy simulation, materials quantity analysis, and construction scheduling, on

THE GSA PREDICTS THAT TEAMS USING BIM FOR SPATIAL MANAGEMENT ARE UNLIKELY TO RETURN TO THE OLD TECHNOLOGY.

select pilot projects. But starting with this fiscal year, funded projects are required, at minimum, to provide “spatial program building information models” as part of their schemes. The spatial models will be used to evaluate how well proposals meet programming requirements.

Although the official GSA goals may seem relatively modest, agency administrators predict the requirements will serve to demonstrate the power of the technology and encourage more comprehensive deployment. “Any team that uses BIM to perform spatial management is

unlikely to return to the old technology,” says Charles Matta, FAIA, director of the GSA’s Center for Federal Buildings and Modernization.

The increasing body of well-advanced and completed projects should also serve to broaden the industry’s adoption of BIM as team members promote the benefits of the process. One recently completed project that used BIM comprehensively is a 65,000-square-foot, three-story office building in Houston designed by Kirksey. Although the firm had been using ArchiCAD, Graphisoft’s object-based software since the late 1990s, this was its first experience as part of an integrated design and construction team using BIM, says Russell Wooten, Kirksey associate. On earlier projects, the firm’s consultants had always worked in 2D.

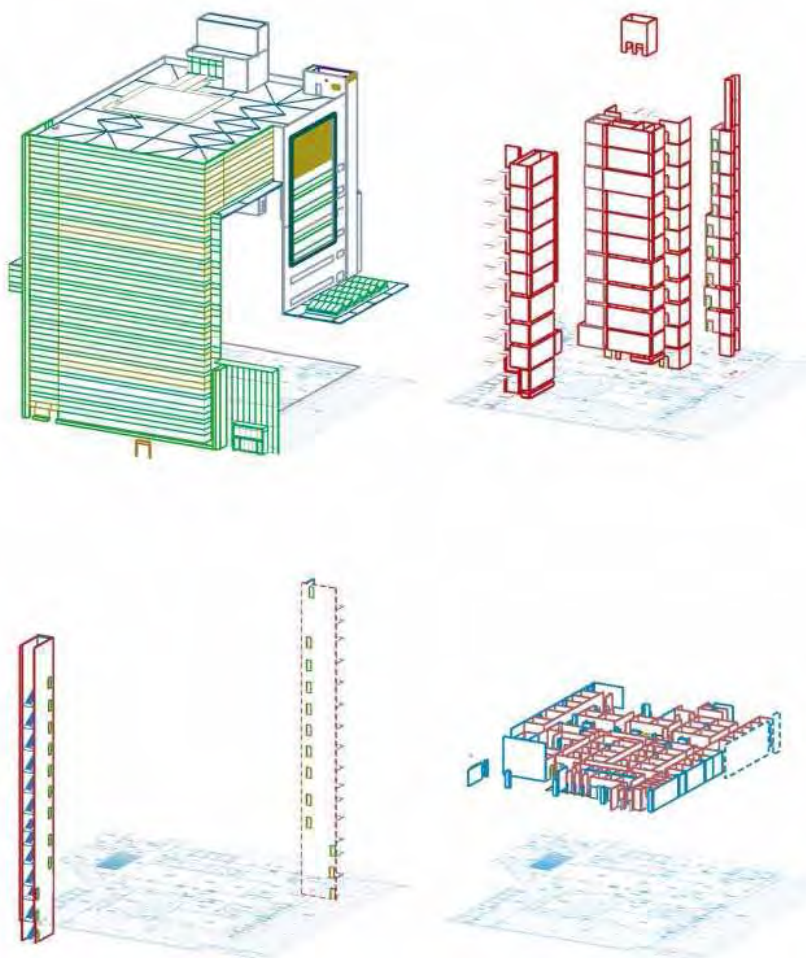
The model was used to evaluate glazing options, perform daylight studies and energy analysis, and coordinate the structural, m/e/p, and architectural systems early in the construction document phase. The general contractor and owner of the building, Satterfield & Pontikes, used the model as an estimating and scheduling tool. The LEED Gold-rated facility was designed and built in 11 months, with no Requests for Information. Use of BIM helped shave two months from the construction schedule and also saved about \$10 to \$15 per square foot, estimates George Pontikes, Satterfield & Pontikes president and C.E.O.

Helping NBBJ meet an aggressive design and construction



BIM has helped NBBJ meet an aggressive schedule for a Cleveland health-care facility. Like most building information

models, the project database is organized by major elements, such as enclosure, core, vertical circulation, and interior fitout.



schedule was one of many reasons for using BIM on the Glickman Pavilion, a 325,000-square-foot urology, nephrology, and dialysis center at the Cleveland Clinic in Cleveland. Although programming was begun in the summer of 2005, more than a year after construction of an adjacent cardiac center was started, the hospital targeted October 2008 for completion of both buildings. “The promise of finding efficiencies [in BIM] has always been there, but we’ve seen it demonstrated for the first time on this project,” says Doug Parris, AIA, NBBJ project manager and partner.

When the owner added another elevator to the building after the contractor had started construction of the foundations, the architect was able to update the model in less than half a day. Construction has progressed smoothly, with structure for five of the building’s 10 floors complete and installation of the curtain wall under way. “Fast-track projects are done all the time, but we were able to do it here without extra staffing,” says Parris.

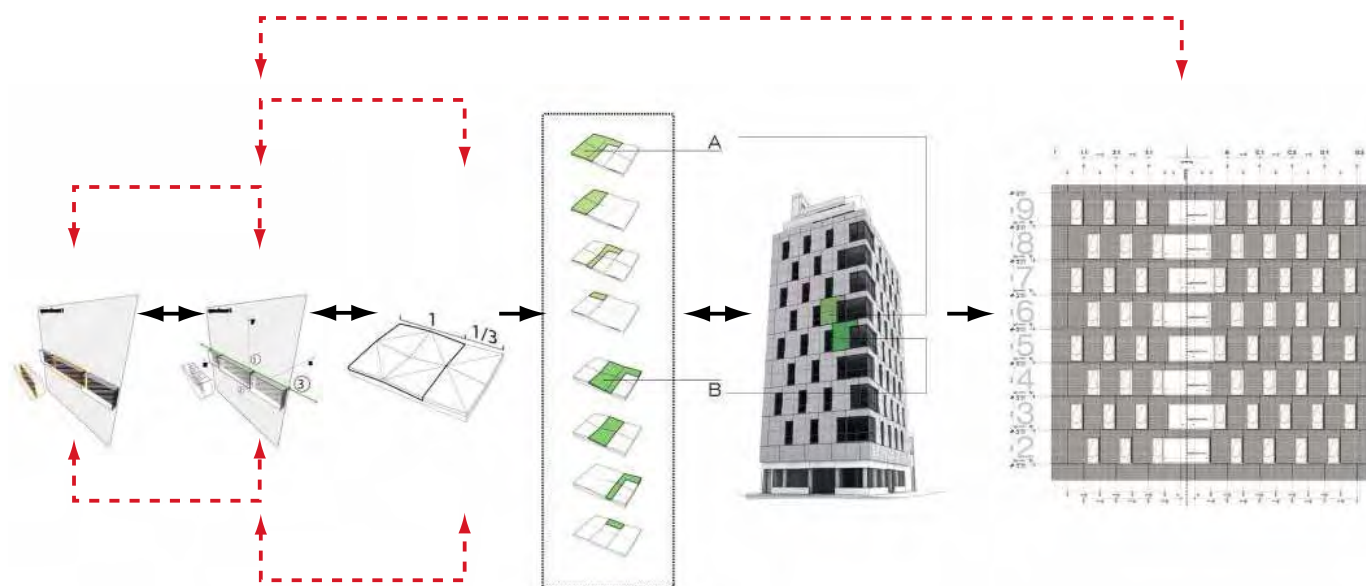
One huge benefit of using BIM for systems-intense building types such as hospitals is the capability of detecting conflicts between the m/e/p components and the architectural and structural elements. A health-and-safety review of the combined digital model for the Royal Hospital London, a 912-bed facility designed by HOK and slated for completion in 2012, uncovered several potential hazards and maintenance issues. Problems such as inaccessible valves and a service ladder located

too close to a manhole would have been costly to correct had they not been detected before construction, points out Miles Walker, a HOK vice president and London office CAD manager. He adds that the kind of intelligence embedded within the model will also be useful once the building is in operation as part of the facility management system.

Never too early

Many sources say that a true building information model (or one that exploits the BIM process to its fullest potential) is based on an information resource shared among all participants and stakeholders throughout the life of a project, from the earliest phases of design through occupancy. However, such comprehensive deployment is still not the norm. Instances of implementation from the start to the end of a project are still rare, says Mieszko Niedzwiecki, AIA, vice president and director of design at Leo A Daly. One of the firm’s current BIM projects is the renovation of a library and design of two new buildings for Georgia State University in downtown Atlanta. Niedzwiecki and his team used BIM even before schematic design to explore programming issues, phasing, and the urban design implications of the proposed project.

Although BIM users constantly refer to “the model,” in actual practice, a multidisciplinary project team is rarely, if ever, served by a

Interface with
fabricator

Parametric interface

Master mold

Family types

Master model

Interface with fabricator

SHoP Architects used four programs to generate a New York City apartment building's faceted brick and precast-concrete cladding. The eight panel types, based on one parent, take into account material properties, transportation limitations, and manufacturing constraints.

single, seamless database. Instead, teams rely on a series of models usually organized by discipline, and are often dependent on different software platforms. The models are generally updated and coordinated at regular intervals, often via a project extranet.

Even within their own offices, architects employ numerous software tools from a variety of vendors, exploiting the strengths of each. Such is the case with New York City-based SHoP Architects. The firm typically uses AutoDesk Revit to manage a project's database but picks

"WE STILL DEPEND ON STANDARDS THAT ARE A LEGACY OF DRAFTING IN 2D," SAYS KIRKSEY'S WOOTEN.

and chooses from other programs for the one best suited for the particular design problem at hand, explains principal William Sharples.

For a 26,000-square-foot, 9-unit condominium building under construction in downtown Manhattan, SHoP used four programs, each from a separate software company, to design the building's faceted panels of brick and precast concrete. The architects quickly sketched the cladding's complex surfaces with the 3D modeling and visualization tool Rhino. But in order to understand the relationship of

one brick to another and determine the configuration and placement of the eight different panel types, they used Gehry Technologies' Digital Project and Bentley Systems' parametric tool, Generative Components (GC). These two programs were employed in tandem to take into account factors such as material properties, transportation limitations, and the fabricator's manufacturing constraints. This cladding data was periodically imported into, and coordinated with, the project's Revit master model and regularly shared with the fabricator, says Federico Negro, SHoP project manager.

New technology, old standards

One challenge facing designers, contractors, and other users of BIM is the lack of standards for the organization and format of the data contained within models. "We still depend on standards that are a legacy of drafting in 2D," says Kirksey's Wooten. Organizations such as the National Institute of Building Sciences (NIBS) and the International Alliance for Interoperability are pushing hard on the issue. (Note: RECORD publisher McGraw-Hill Construction is an active member of the alliance.) At RECORD press time, the institute was due to release a draft document establishing principles and methodology for a national BIM standard. The draft will be available for public comment at www.nibs.org through

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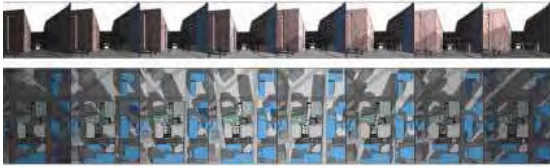


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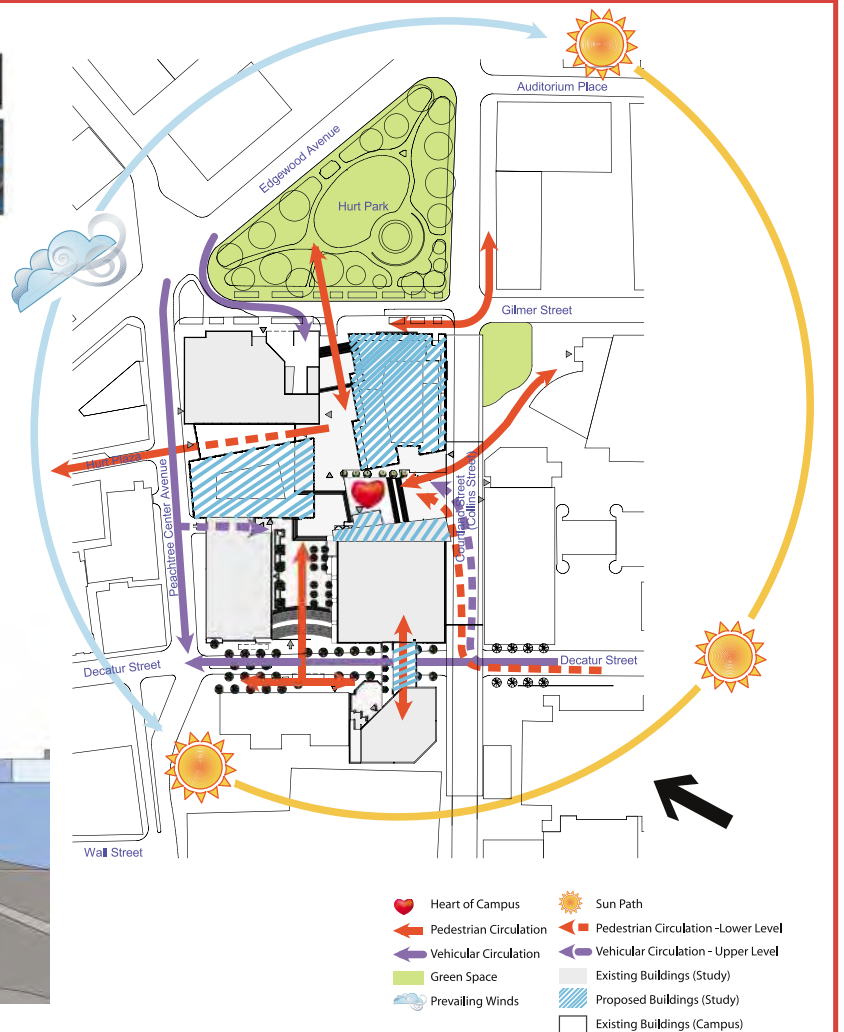
Library Bridge Sun Study for December 22
(plan, above, and elevation, top).

Leo A Daly used visualization and BIM tools to explore the programming and phasing of a project for the Georgia State University campus in Atlanta that includes a library

expansion (below) and several new buildings. The tools helped determine the scheme's impact on daylight and pedestrian and vehicular circulation (above and right).



Section through library bridge.



mid-May, with release of a final document slated for early June, according to Deke Smith, chair of the institute's national BIM standards committee.

A particular focus of the NIBS effort is postconstruction accessibility of the building information model so that it could be used by a variety of stakeholders, including insurers, first responders, or facility managers. Some sources worry that the effort is geared too much toward the building's end users to be valuable to designers. But Smith points out that "the true payback [of BIM] is in the building's facility management phase, since it is the longest, typically 50 to 75 years."

Roles and relationships

One barrier to adoption of BIM is not the technology itself, but the implications for changes in the relationship of all the members of a project team. Because BIM allows architects, their consultants, owners, and contractors to share information and expertise more easily and earlier in the life of a project, many proponents see it as a catalyst for use of more integrated delivery methods than design-bid-build. The AIA, the Construction Users Roundtable, and the Associated General Contractors of America are collaborating to better understand the impact on traditional professional roles and liability. Among these groups' initiatives is an effort to create new model contracts to help define responsibilities and address the allocation of risk and financial reward.

The issue of ownership of the data contained within the model is also unresolved. John Marinello, Flack & Kurtz C.I.O., worries about the interpretation of data generated by computational fluid dynamics tools and other complex simulation programs. "We don't want our data manipulated by another consultant," he says.

WITHIN ARCHITECTURE FIRMS, THE NEW TECHNOLOGY IS REDEFINING CULTURE, HIERARCHIES, AND WORK FLOW.

Within architecture firms, the technology is forcing changes in culture and work flow. SHoP's Negro points out that before the firm started using BIM, he and his colleagues would divvy up project responsibility by drawing sheets. Now work is assigned according to a building's major elements, such as the enclosure, the vertical core, or interior partitions.

Although adjustment to this new division of labor can be difficult, Negro and other sources say the interconnected nature of the model's elements enhances communication and reveals potential problems earlier in the design process. "Because we are working on the same model, it encourages interaction more than before," says Eric Watson, AIA, of SmithGroup. Watson is project architect for one of the



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AFG Comfort Ti-AC23 Performance Data

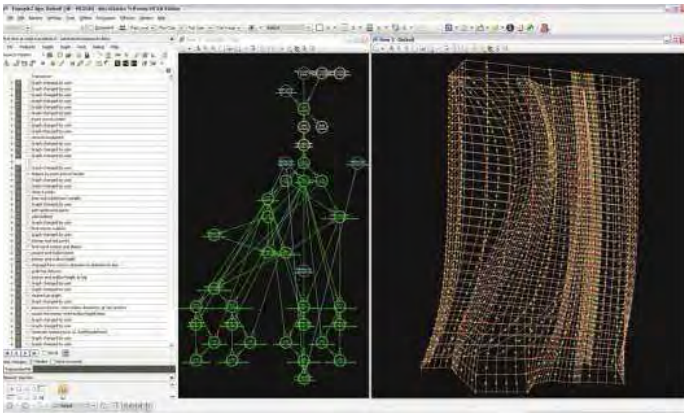
Glass Thickness	Air Space	Winter U-value		Summer U-value		% Transmittance			% Reflectance			Shading Coefficient	SHGC	RHG	
		Air	Argon	Air	Argon	Visible	Solar	UV	Vis out	Vis in	Solar			Air	Argon
SGL	1/2"	0.30	0.24	0.28	0.22	41	20	20	11	11	34	0.27	0.24	59	56
1/8"	1/2"	0.30	0.24	0.28	0.22	40	19	19	12	11	33	0.27	0.23	58	55
5/32"	1/2"	0.29	0.24	0.28	0.22	40	19	17	12	11	31	0.27	0.23	58	55
3/16"	1/2"	0.29	0.24	0.28	0.22	39	18	16	13	11	29	0.27	0.24	58	56
1/4"	1/2"	0.29	0.24	0.28	0.22	38	18	16	13	11	27	0.27	0.23	58	55

All values are for center of glass and were obtained using LBNL's Window 5.2 software
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The curvy geometry of a set of office towers planned for Dostyk, Kazakhstan, is based on an underlying computer code that relates criteria such as view corridors and height. Because of the parametric relationships, adjustments to one factor produce corresponding changes in the others.

firm's five current BIM projects—a 63,000-square-foot life sciences building for Mesa Community College, in Mesa, Arizona.

The BIM process is also blurring distinctions between managers, technical staff, and designers. "There is a breakdown of traditional hierarchical roles to a much more granular level where all team members are important," says Allan Partridge, principal of HIP Architects, an Alberta-based firm in its fourth year of full BIM deployment. "Technologists are being involved much earlier in the work flow," he adds.

For architects and consultants, one of the most exciting aspects of BIM is the technology's potential to collapse separate activities, such as design, analysis, and documentation, into one, although most sources would agree the link is still far from seamless. NBBJ and E/Ye Design, a four-year-old firm based in Troy, New York, and Jackson, Wyoming, are connecting the tasks of geometry rationalization and design in their development of a scheme for a 4.68-hectare (11.6-acre) office park for Dostyk, Kazakhstan. The firms are using Bentley's GC to define the configuration of the complex's curvy towers. The architects have written a script that establishes the relationship between criteria such as view corridors, height, and shape, explains Nona Yehia, E/Ye principal. Because these criteria are interconnected, an adjustment to one factor produces a change to the others, she says. Here, BIM "is an integral part of the design rather than a tool for documentation." ■



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- ◆ Read the article "Transformative Tools Start to Take Hold" using the learning objectives provided.
- ◆ Complete the questions below, then fill in your answers (page 191).
- ◆ Fill out and submit the AIA/CES education reporting form (page 191) or download the form at archrecord.construction.com to receive one AIA learning unit.

QUESTIONS

1. Proponents of BIM claim it will accomplish all except which?
 - a. streamline the delivery process
 - b. lengthen the time to implement change orders
 - c. ensure better-coordinated documents
 - d. provide a basis for more accurate construction
2. Using BIM properly should do all except which?
 - a. result in better-performing facilities
 - b. result in a faster construction process
 - c. produce fewer construction claims
 - d. result in higher construction costs
3. An object-oriented digital representation of a building is which?
 - a. a collection of lines on the screen
 - b. a compilation of integrated, dynamic data
 - c. photos of a model scanned into CAD
 - d. a prototype produced by a 3D printer
4. Data contained within a building information model could include which of the following?
 - a. structural characteristics of beams
 - b. fire rating of partitions
 - c. warranties for mechanical equipment
 - d. all of the above
5. Starting this fiscal year, General Services Administration design and construction teams are required to use BIM for which?
 - a. spatial analysis
 - b. energy simulation
 - c. materials quantity analysis
 - d. scheduling
6. Within architectural offices, work on a building information model is typically assigned to employees according to which?
 - a. drawing sheet number
 - b. building elements, such as the enclosure or vertical core
 - c. drawing type, such as plans, sections, or elevations
 - d. design phase
7. Which is an example of a benefit of using BIM to design buildings?
 - a. its capability to help detect conflicts between m/e/p systems and other components
 - b. its ability to help perform daylight studies and energy analysis
 - c. its ability to help explore programming issues and urban design implications
 - d. all of the above
8. An effort of the National Institute of Building Sciences is which?
 - a. train people to use software
 - b. increase use of design-bid-build
 - c. create standards for the organization and format of the information contained within building information models
 - d. blur the distinctions between managers, technicians, and designers
9. Potential users of data in a building information model postconstruction are which?
 - a. insurers
 - b. first responders
 - c. facility managers
 - d. all of the above
10. Which of the following is not a barrier to the adoption of BIM?
 - a. implications for changes in workflow
 - b. changes in the relationships among members of the project team
 - c. revealing potential problems earlier in the design process
 - d. changes in firm culture

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Tech Briefs

A London architect rethinks the **house as a small machine for living** with a cube that nods to airplane design, while elsewhere in the U.K. and Los Angeles, researchers attempt to **print a house** using an experimental fabrication technology that could transform construction



The Micro Compact Home takes cues from airline technology to incorporate electrical outlets, LED lighting, a microwave, and two flat-screen televisions into the 100-square-foot

space. The house includes a shower, toilet, sink, and a hot-water heater, in addition to two compact double beds (top left) and dining space for up to five (far left).

A super-small house achieves an ideal state of design integration

Richard Horden looks to a lustrous time in design with his Micro Compact, 10-foot-square houses—a time when it was actually a pleasure to fly in an airplane.

Horden's tightly integrated pre-fab cubes came onto the European market last summer, retailing for \$60,000 installed, and he's handling the production of twelve of them on order from a European client for a project due this fall. The houses are factory-produced in Austria.

The cubes, intended for short stays, reflect Minimalist influences, but Horden says the core ideas come from shuttling routes on com-

mercial airlines. "I was intrigued by how well designed small scale can be," he says. However, it's hard to find inspiration in air travel, with one's knees barked by the seat tray table from Narita to San Francisco. But like airplanes, the 2-ton cubes use only the materials necessary.

Horden's maximizing of small spaces led first to the portable, futuristic Ski Haus—which featured aluminum sheeting, a propane kitchen, solar photovoltaic power—and then to this more fully realized Micro Compact house. Horden teaches at Munich's Technical University, and six of the cubes

have been used there for housing. The designer, a principal at London-based Horden Cherry Lee Architects, stays in one himself.

There's no furniture—it's already integrated in the design—no big paintings on the wall, and no piled papers. The plywood-and-aluminum cube is about flat-panel screens and broadband connections, a virtual space that extends the real conditions of the cube. The bed folds down from the ceiling. When the door is closed, the entranceway can be used as the shower. Every space is multipurpose. Placed on-site by a crane, the cubes connect to utilities

in minutes. A low-energy version comes equipped with photovoltaics and a wind turbine.

While it's a nod to the hyper-urban stylings of Kisho Kurokawa or William Gibson, Horden's cube can be pictured in much more bucolic settings, such as a weekend cabin by the wooded trout stream. "It's short stay, smart living," Horden says, more teahouse than coffin hotel. "It shows the value of scale."

And with the cube's lighting system of indirect LED strips in 10 fittings, it only takes 53 watts to light the whole thing.

Michael Dumiak

Tech Briefs

As prefabrication sheds its off-the-rack image, automation via 3D printing threatens to transform conventional construction

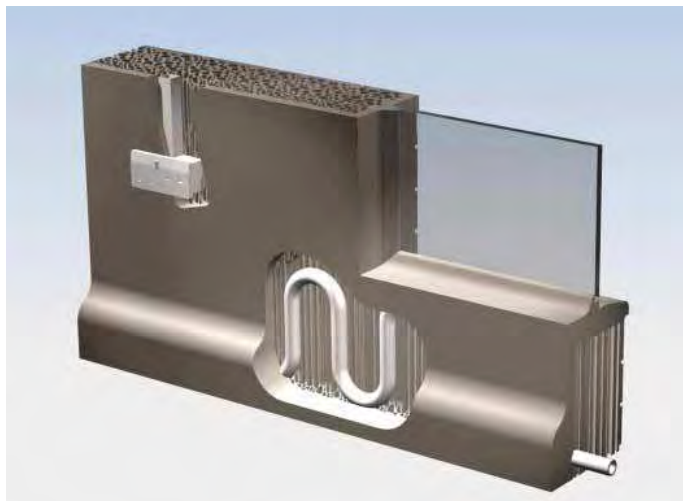
The supersizing of printer technology could significantly extend the limits of concrete. By adapting technologies similar to those used in ink-jet and 3D printers and rapid prototyping machines for large-scale use, researchers in the U.S. and the U.K. are developing automated systems capable of rapidly constructing houses and other structures.

This spring, the University of Southern California's Center for Rapid Automated Fabrication Technologies (USC's CRAFT) plans to test its large-scale 3D printing system by building a 300-square-foot house in a day. The extrusion technology consists of a tank for cement, polymers, ceramic slurry or other wet materials, a nozzle, and several precisely controlled trowels. The machine could ride on a gantry, a robotic unit or crane.

By depositing layers of cementitious materials such as concrete and gypsum—more or less “printing” designs translated from CAD files—the systems promise a cheaper, faster, and less-polluting method of building. Researchers are working on prototypes with an eye toward housing, temporary structures, multistory buildings, and space exploration.

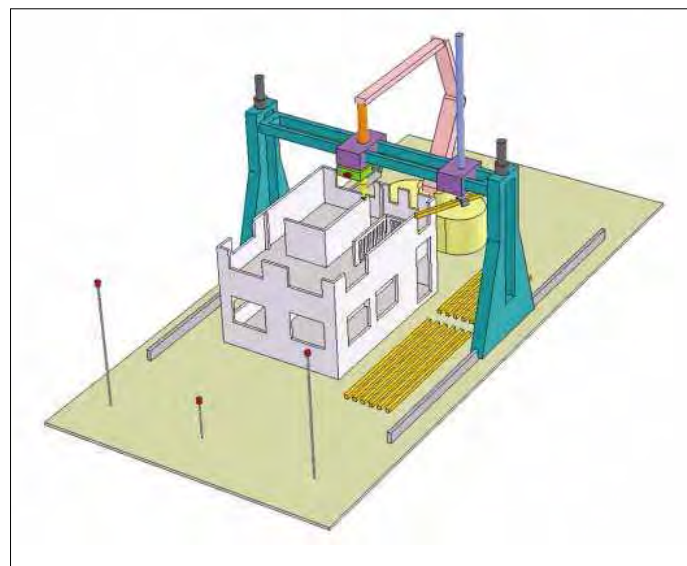
The process promises a number of environmental benefits, including less construction site pollution and waste, and less traffic to the site (given the lower labor requirements). The method can also produce tight, energy-efficient buildings, according to Behrokh Khoshnevis, an engineering professor at USC and a director at CRAFT.

The USC scheme, accurate to a millimeter, could embed strain gauges and other “smart” components within walls and to vary the composition of structures by layering in different materials during construction. Metal reinforcement, plumbing, electrical systems, and tiling can also be automated, accord-



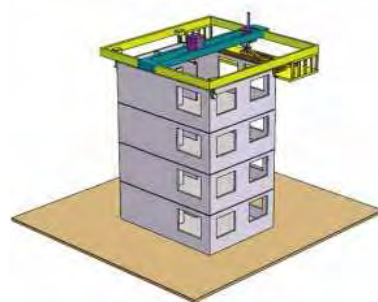
ing to the USC researchers. While the technology should be production-ready within several years, building practices and codes might be slower to change, notes Khoshnevis.

In the U.K., Loughborough University's Rapid Manufacturing Research Group is working on a system capable of constructing buildings down to the level of fixtures and built-in furniture. The project, which spans materials research, biomimicry, adaptive buildings, and technologies for monitoring and maintaining build-



ings, is years away from constructing a complete building.

The Loughborough scheme can “print” conduits, ducts, and other service voids, in addition to window frames and, potentially, windows. The project has produced a small room-size gantry system, according to director Rupert Soar, an engineering professor at Loughborough. This scheme allows for the recycling of building parts and entire buildings as conditions dictate, according to the researchers.



Plans by USC researchers include a simple gantry (below) for constructing a house, as well as a combination scaffold/gantry for high-rises (above). Loughborough University's gantry (below left) could eventually produce an entirely integrated wall system (left).

The technology has drawn the interest of designers and engineers. “Our main interest is in making structures more efficient by controlling the amount and the distribution of material in the structure according to its needs,” said Jalal El-Ali, an engineer at Buro Happold in London. “Printing buildings, using single or multiple materials, would make freeform buildings more [realizable]. We have the knowledge to design such buildings, we just need the tool.” *Ted Smalley Bowen*

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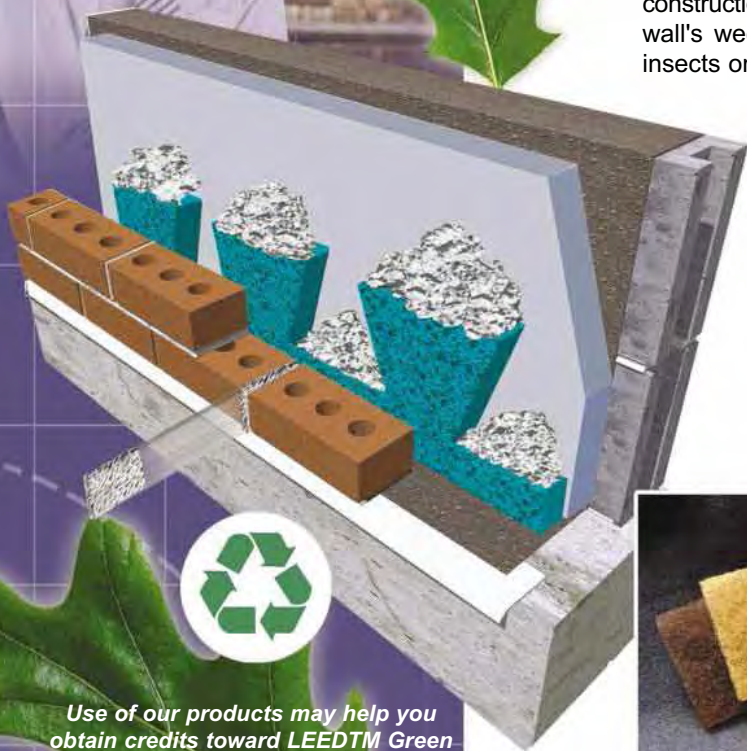
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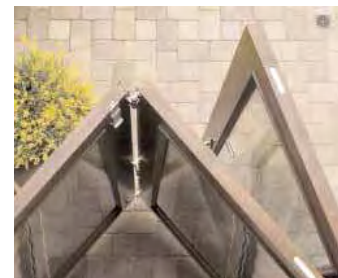


Product Focus Windows & Doors

Our roundup this month includes products that help **create ornamental centerpieces**, increase safety or security, apply unexpected materials such as **eucalyptus and crystal**, or further open up the building envelope, as with the exterior folding door system featured here. *Rita Catinella Orrell*



Clockwise from left: The post-free folding door system, here with three panels per side; beveled door edges protect it from weather; drop bolts and five-point locking hardware come standard.



Post-free 90-degree folding door system peels back the layer between indoors and out

For the past few years, exhibitors at the International Builders' Show (IBS) have responded to a demand in the residential marketplace for spaces that extend indoor living areas to the outside. Product introductions at the most recent edition of IBS, held last February in Orlando, included outdoor kitchen appliances to replace indoor food prep, cooking, and cleanup; retractable window screens that allow unobstructed views when not in use; and a growing number of exterior folding door systems that open up rooms to patios, gardens, and decks.

Jeld-Wen launched its first folding door system at last year's IBS, and the product's success

encouraged the company to take the concept one step further this year. The zero-post, 90-degree Exterior Folding Door System allows designers to open up two wall spans in a room with a single product. The suggested length for each side of the system is three to five panels; longer than that is not recommended. Beveled door edges and double weather strip seal the unit against the elements, even without a structural corner post.

Shane Meisel, product marketing manager for Jeld-Wen, says that architects specifying the system must make sure they have an appropriate header, and depending on the number of door panels, use a sup-

porting I-beam. Working with a structural engineer is also suggested.

Jeld-Wen's first generation folding door system for flat applications offers a DP 45 rating and general Florida building code approvals, while the 90-degree option is currently undergoing third-party testing. The system is available in Jeld-Wen IWP Aurora Custom Fiberglass door panels, as well as custom wood. Panels come stained, painted, or primed with energy-efficient low-E glass as an option. The door frame can be clad with any Jeld-Wen standard color to match windows, and for security the system features drop bolts and five-point locking hardware.

Applications range from high-end single-family homes and condos to commercial projects such as hotels and restaurants. Meisel expects the system to sell well, specifically to customers "who want to commune with nature, or bring the outdoors in." While folding door systems do tend to sell better in temperate climates, he adds, "We sell quite a few in the Colorado/Montana area, the Pacific Northwest, the Northeast, and the Mid-Atlantic. It's more a personality and lifestyle type than a specific region." Jeld-Wen Windows & Doors, Klamath Falls, Ore.
www.jeld-wen.com **CIRCLE 210**

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► Italian entrance

The Graffiti door, designed by architect and Luceplan founder Paolo Rizzatto with the graphics of Italo Lupi, features bas-relief decorations on the panel in three different motifs alluding to letters of the alphabet. Available in a range of depths, the door jamb juts out from the wall and can be used as a support for brackets, hooks, shelves, or wood paneling, or fitted with wires or electronics as needed. Montanari Group, Los Angeles. www.montanarigroup.com **CIRCLE 211**



► Fire-rated metal doors

Now available in an expanded palette of designs, Forms+Surfaces' Architectural Metal Door collection allows specifiers to choose from an array of metal, finish, and pattern combinations while specifying doors with 45-minute, 60-minute, 90-minute, and 3-hour UL fire ratings. Six configurations and sizes up to 4' x 10' are standard. Shown here is the Champagne pattern in stainless steel. Forms+Surfaces, Carpinteria, Calif. www.forms-surfaces.com **CIRCLE 212**



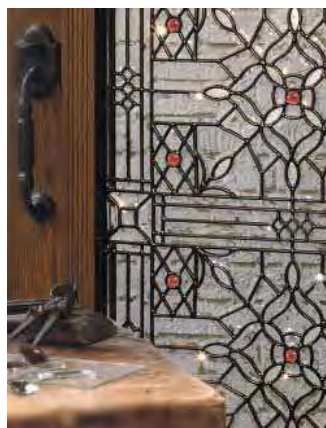
◀ Certified wood alternative

Bieber USA's solid three-ply seasoned eucalyptus is harvested from FSC certified South American plantations. A low-maintenance, renewable hardwood alternative to mahogany and teak options, the custom-designed windows and doors are finished with water-based finishes. Unlike traditional American windows, Bieber's tilt-and-turn functionality allows the windows to open easily and completely inward. Bieber USA, Tustin, Calif. www.bieberusa.com **CIRCLE 213**



◀ Crystal palace

The limited edition Ventura door-glass set features faceted red and clear Strass Swarovski crystals set within rich patina caming. The set includes a 24½" x 65" door-glass unit; two 8" x 65" side lights, and a 66⅞" x 33⅜" half-round transom. Each set of Ventura door glass is numbered by the designer, with only 50 sets available. A door frame featuring generous moldings and patina medallions coordinates with the design. ODL, Zeeland, Mich. www.odl.com **CIRCLE 214**



▼ Access at your fingertips

Kwikset introduced SmartScan, the industry's first residential biometrically accessible dead-bolt door lock system, at this year's Builders' Show. Programmable with up to 50 user fingerprints, the lock can be controlled by swiping a valid fingerprint across the sensor, eliminating the need for a key or key code. Using RF electronic imaging, SmartScan reads live fingerprint patterns located beneath the dermal outer surface layer of the skin. Kwikset, Lake Forest, Calif. www.kwikset.com **CIRCLE 215**



▲ Neoclassical revival

The second family to be launched in Weather Shield's Collections product line, the Neoclassical collection of windows and doors mirrors the delicate detailing of Adam and Georgian architectural styles with a narrow sash profile and ⅞" Simulated Divided Lites. Ideal for upscale, traditional custom homes, the line features hard-cast Stone River Bronze hardware in natural nickel or a dark antique oil-rubbed bronze. Weather Shield Windows & Doors, Medford, Wis www.weathershield.com **CIRCLE 216**

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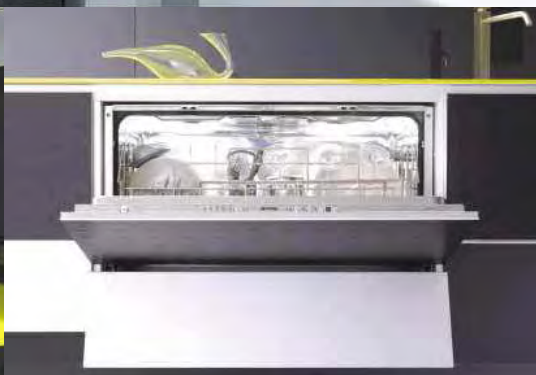
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Product Briefs

► Seating for 10

The Oasis bench, designed by o4i, was inspired by the shapely dunes that the wind sculpts out of sand. Made of a vacuum-formed ABS plastic sheet over a recycled utility base, the bench is 100 percent recyclable, UV-resistant, weatherproof, and fire-retardant. Seating up to 10 people, the multisided bench can be used indoors or out in corporate, healthcare, hospitality, institutional, and educational spaces. Upholstered seat pads are available for indoor use, while outdoors the bench can be safely mounted to the ground if required. Oasis is offered in a range of colors and surfaces. Peter Pepper Products, Compton, Calif. www.peterpepper.com **CIRCLE 217**



► Artistic trench/drain grates

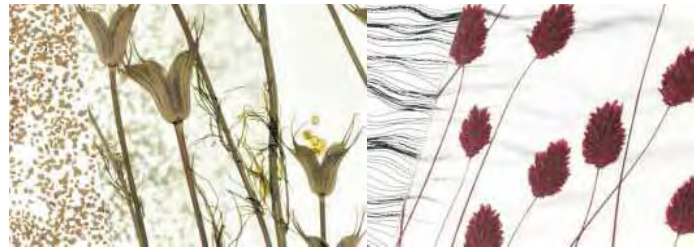
Formed by artisan foundry professionals, Iron Age Designs made its official debut at this year's World of Concrete show. The company creates a range of geometric and botanical patterned grates as well as customized decorative grates made of 80 to 100 percent postconsumer recycled iron. All grates fit industry standard size trench drain bodies and catch basins from major manufacturers and are designed to be ADA compliant. The company also offers custom castings, including trench grates on a radius, tree grates, medallions, and manhole covers. Iron Age Designs, Burien, Wash. www.ironagegrates.com **CIRCLE 218**



◄ Elevator safety system

The Panachrome 3D elevator safety-detection system uses infrared light technology, rather than physical contact, to detect obstructions and direct door movement. In addition, a visual warning system uses red and green illuminated segments along the edges, alerting elevator passengers to door movement. The strips glow green when it is safe to enter and exit, and flash red to signal the doors are about to close. The system complies with ADA requirements, and is suitable for both center-opening and side-opening doors. Janus Elevator Products, Hauppauge, N.Y. www.januselevator.com

CIRCLE 219



▲ Spring collection

Veritas has added the Texture and Content collection to its ResinArt line of resin panels. The line features not one, but four designers, including New Mexico-based sculptor Ken Leap, Eric Mailaender of the New York architecture and interior design firm Resistance Design, Libby Kowalski of Kova Textiles, and Marybeth Shaw of Shaw-Jelveh Design. Shown in resin (from left to right): Evora, an undyed, granulated cork; Nadia, with seeds bursting from pods; Black Wave, a pattern of undulating black threads; and Lucille, an array of bright wildflowers. Robin Reigi, New York City. www.robin-reigi.com **CIRCLE 220**

► Bricklike finish system

Sto Creativ Brick is a lightweight, customizable brick finish system that can be used over prepared exterior surfaces such as EIFS, stucco, tilt-up, or CMU to give the impression of brick. To install, self-adhering templates are applied over the primer layer to provide the appearance of mortar. The finish layer can be applied in varying thicknesses to achieve the desired stand-out of the brick from the mortar. Brick finishes are available in 800 colors, and the mortars are offered in 42 colors options. Sto Corporation, Atlanta. www.stocorp.com **CIRCLE 221**



► Greener particleboard

Columbia Forest Products has begun producing formaldehyde-free PureBond particleboard, complementing an existing line of formaldehyde-free hardwood plywood products. The particleboard will be manufactured at the company's Hearst, Ontario facility, which will turn the board into finished hardwood plywood and other panels. Columbia is seeking arrangements for other composite-panel manufacturers to incorporate the PureBond adhesive system into their processes. Columbia Forest Products, Portland. www.columbiaforestproducts.com **CIRCLE 222**





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Product Resources: Literature

A vision in tile

Élisabeth Védrenne has authored *Bisazza: Contemporary Mosaics* for the legendary tile house. Beginning with 11 pages of text about the history of the Bisazza family and legacy, the small book is mostly composed of bright, eye-catching, and sometimes dizzying full-page images. Assouline Publishing, New York City. www.assouline.com **CIRCLE 223**

Magazine is the new catalog

Solutions: The Schott Technology Magazine is the title of Schott's revamped customer publication, featuring innovative companies that use Schott products in power plants, cell phones, LED lamps, cooktops, breweries, flat-screen monitors, telescopes, and more. Schott, Elmsford, N.Y. www.us.schott.com **CIRCLE 224**

All the bright lights

Allscape's new product and application catalog, *Portfolio 5*, contains model specifications and product highlights for landscape lighting solutions. Floodlights, low-level, building-mounted, step, and other outdoor area lighting are thoroughly illustrated with color photographs and drawings. Allscape, Santa Ana, Calif. www.alllighting.com **CIRCLE 225**

The green line

An expanded EnviroGT brochure from InPro Corporation introduces new handrails and wall and corner guards from the company's sustainable product line. All EnviroGT products are manufactured from 100 percent recycled high-density polyethylene and Forest Stewardship Council-certified wood. InPro, Muskego, Wis. www.inprocorp.com **CIRCLE 226**



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Product Resources: Web

www.gunlocke.com

The new Web site for casegoods and seating specialist Gunlocke manages to make an enormous amount of information simple and accessible. Its clean and uncluttered pages present product descriptions, pricing, and technical specs in Cap and Excel, 2D and 3D AutoCAD drawings, furniture symbols, finish choices, lead times, warranties, and downloadable images and brochures. Special sections provide important information tailored to the specific needs of dealers, designers, and government sales.



www.amtico.com

Amtico has launched a new Web site to showcase its high-end flooring designs. The company's three major sites, Amtico Home, Business, and International, are kept separate with links providing access between them. Also available are links to the Stratica Web site, with information about Amtico's line of sustainable flooring. Images of flooring designs in real bathrooms, hallways, kitchens, and living rooms are attractive, but with small and inconspicuous links, the site is awkward to navigate.

www.marazzitile.com

Marazzi's newest showroom is open all day, every day at their redesigned Web site. Specifying a product can be stressful, but navigating this site is a breeze thanks to impressively intuitive organization, cool colors, and bold forms. The new SpecWizard, located under specifications in the technology section of the site (arcat.com/specwizard/09300amt/index.htm), has been developed by Marazzi with ARCAT to make writing a Marazzi spec as simple as possible.



www.lightingecosystem.com

To promote its innovative EcoSystem fluorescent dimming solution, Lutron came up with an interactive multimedia Web site, which uses people instead of paragraphs to explain the product. The video components are unobtrusive and can be paused at any time to explore further information through

navigational links that never leave the page. Simulated 24-hour office lighting videos during explanatory speeches make the message clear and simple.

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- Masonry Institute of America's (MIA) **2006 Masonry Codes and Specifications** focuses on all aspects of masonry and includes key sections of the 2006 IBC® and IRC®. MIA's **Masonry Design Manual, 4th Edition** is a great resource featuring code guidelines on virtually every aspect of masonry design.

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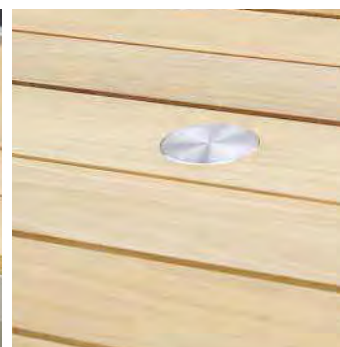
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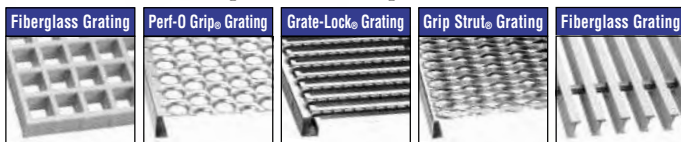


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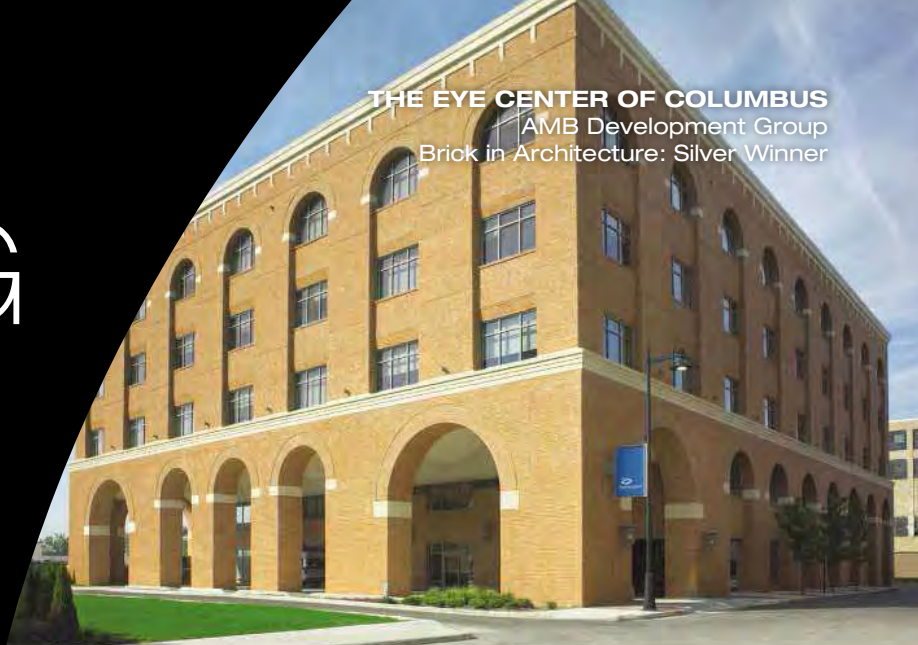
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New and Upcoming Exhibitions

AIA 150

2007 AIA New York Chapter Design Awards New York City

April 9–July 7, 2007

A showcase of the 2007 award-winning projects in three categories: Architecture, Interiors, and Projects. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

AIA 150

NY 150+: A Timeline: Ideas, Civic Institutions, and Futures New York City

Through June 23, 2007

To commemorate the 150th anniversary of the founding of the

American Institute of Architects in New York City, the AIA New York Chapter will feature an exhibition charting the transformation of the city and the profession from 1857 through the present and into the future. Genetic lines tracing the founding of the institute will intersect with various democratic and social movements and the architecture of New York's civic structures. Fifteen buildings and public spaces will be presented with a factual overview and commentary by architects, critics, journalists, authors, and others to illustrate the ideas that define the city's history as well as its future. A preamble will frame the social, cultural, and historical discourse, giving special emphasis to the directions of architecture in the city as imagined within a puritan pastoral democracy. At the Center

for Architecture. Call 212/683-0023 or visit www.aiany.org.

AIA 150

AIA National 150 Best Buildings Exhibition Opening Washington, D.C.

April 11, 2007

Visit www.aia.org

Open House: Architecture and Technology for Intelligent Living Pasadena

April 14–July 1, 2007

This exhibition will offer glimpses into the house of the future as a place for new spatial experiences, systems of sustainability, and sensory enhancements through recent technologies and material developments. It will feature specially

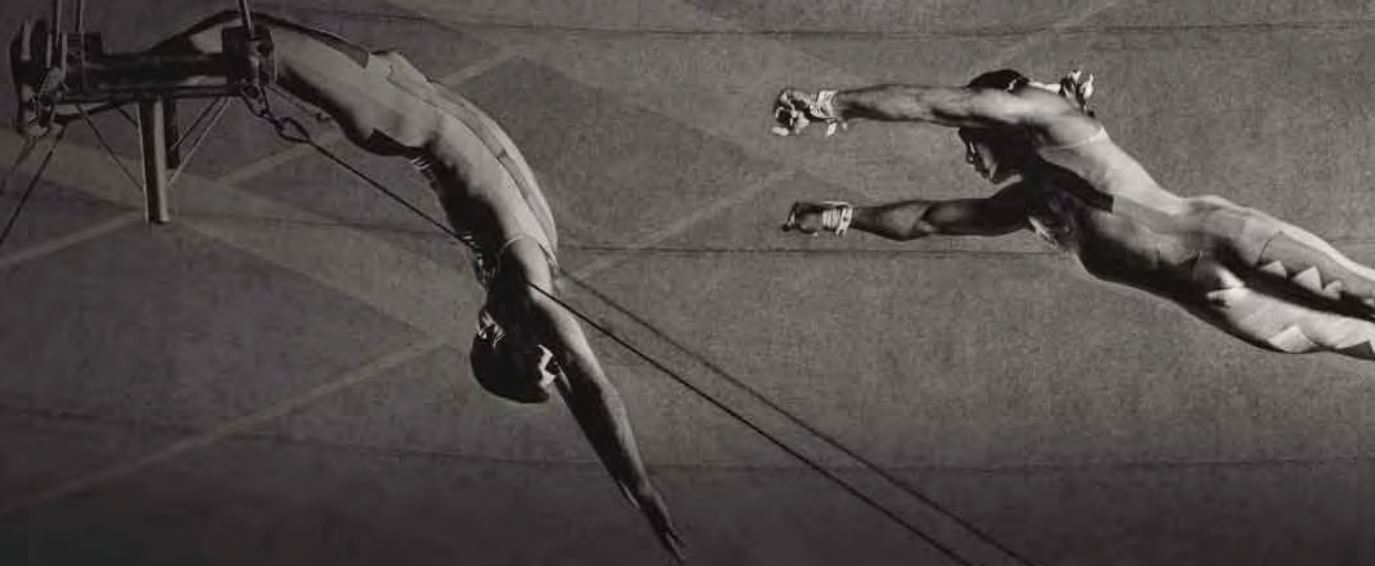
commissioned "intelligent houses" by 10 teams of emerging architects and designers from the United States, Europe, Australia, Asia, and Mexico. The research aspect of the design process will be highlighted and will encourage visitors to explore their own ideas about the future in a public forum. At Art Center's South Campus in Pasadena. Call 626/396-2380 or visit www.artcenter.edu.

Devil in the White City Tour Chicago

Select Fridays and Sundays, April 20–October 28, 2007

The tour is based on Eric Larson's best-selling book and focuses on two events: the World's Columbian Exposition of 1893 and the emergence of America's first serial killer to come to public attention.

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**Snapshot 007:
Current Houston Design on View
Houston**

May 18–June 16, 2007

The fifth open-call exhibition showcasing architecture, urban planning, preservation, landscape architecture, interiors, furniture, and graphics by more than 100 Houston architects and designers. At Lawndale Art Center. Call 713/348-4876 or visit www.rda.rice.edu.



**Studio @ the Center:
Lighting Design
New York City**

June 7–August 4, 2007

This exhibition will highlight the work of 12 students from the High

School of Art and Design who are taking part in the intensive after-school program that exposes them to one area of design through interaction with design professionals. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

**On a Grand Scale:
The Hall of Architecture at 100
Pittsburgh**

*September 22, 2007–
January 13, 2008*

In celebration of the 100th anniversary of the Carnegie Museum of Art's Hall of Architecture, the museum will present an exhibition surveying its collection of nearly 150 plaster architectural casts that Andrew Carnegie created specifically for this magisterial space. At the time of the hall's inauguration in April 1907, the museum joined the ranks of prominent American museums exhibiting plaster casts of monuments from around the world. To ensure the hall's relevance to visitors, Carnegie surveyed architects

of the day to determine which casts the museum would acquire. At the Heinz Architectural Center. Call 412/622-3131 or visit www.cmoa.org.

Ongoing Exhibitions

**Architecture Interruptus
Columbus, Ohio**

Through April 15, 2007

The Church of Saint Pierre, in Firminy, France, was designed by Le Corbusier and Jose Oubriere in the early 1960s. Now, after years of interruptions, Oubriere is bringing the project to fruition. Featuring historical and contemporary photographs and drawings, the exhibition strives to bring the experience of the building to life. At the Wexner Center galleries. Call 614/292-3535 or visit www.wexarts.org.

**The Home House Project:
The Future of Affordable
Housing**

New York City

Through April 21, 2007

The project challenged artists and architects to design single-family houses using Habitat for Humanity's basic plans as a point of departure. This exhibition presents 100 innovative housing designs that explore affordable housing. At the 69th Street Gallery of the New York School of Interior Design. Call 212/472-1500 or visit www.nysid.edu.

**Prefabricated Homes
in America: The Early
20th Century
Mail-order House
New York City**

Through April 21, 2007

As early as 1914, consumers were able to acquire prefabricated houses factory-direct through mail-order sources. This exhibition features facsimiles of vintage catalogues and pattern books featuring mail-order houses and plans. At the 70th Street Gallery of New York School of Interior Design. Call 212/472-1500 or visit www.nysid.edu.

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Dates & Events

Zaha Hadid Architects and Eric Owen Moss Architects: Adventures in Kazakhstan Los Angeles

Through April 22, 2007

This exhibition features the design entries of London-based Zaha Hadid Architects and Los Angeles-based Eric Owen Moss Architects for an invitational competition for Republic Square in Almaty, Kazakhstan, which consisted of a multiuse building complex on a prime lot. At SCI-Arc Library. Call 213/356-5329 or visit www.sciarc.edu.

Grounded: Eisenman Architects Los Angeles

Through April 22, 2007

This is an installation by world-renowned Eisenman Architects. Most of Peter Eisenman's work has sought to overcome the traditional idea of architecture as a figure on a ground by "figuring the ground": making ground a figure. Some projects carve into the ground, while others manipulate the surface to create a figured ground. This installation considers Eisenman's "groundwork" from one of the earliest projects, the Cannaregio Town Square in Venice (1978), to the Wexner Center for the Arts in Columbus, Ohio (1989), and the City of Culture of Galicia, in Santiago de Compostela, Spain (currently under construction). At SCI-Arc Gallery. Call 213/356-5329 or visit www.sciarc.edu.

Prairie Skyscraper: Frank Lloyd Wright's Price Tower Chicago

Through April 29, 2007

The Price Tower Arts Center in Bartlesville, Oklahoma, has the distinction of being the only fully realized skyscraper Frank Lloyd Wright ever designed. Built in 1956 and inspired by a tree, at 19 stories tall the building transformed the flat prairie on which it was built, altering the horizon with Wright's bold architectural statement. This exhibition celebrates the 50th anniversary of this milestone in American architecture and features drawings, photographs, building components, and some of the original furnishings designed by the architect. Call 312/922-3432 or visit www.architecture.org.

A House for an Ecologist Chicago

Through May 5, 2007

The competition sought designs for a live/work dwelling for an ecologist in residence at the U.S.

Fish & Wildlife Service, located on the grounds of the National Conservation Training Center in Shepherdstown, West Virginia. Local competition winner Florian Morozan with M3 Architectural Consultants will present his entry. At the John Buck Company Lecture Hall Gallery. Call 312/922-3432 or visit www.architecture.org.

Some Assembly Required: Contemporary Prefabricated Houses Los Angeles

Through May 20, 2007

This exhibition presents eight projects, by several of today's leading architects of modular dwellings, which take various approaches to prefab—from homes that are built by the owner out of a kit with an instruction manual to those that are delivered fully assembled. At the Museum of Contemporary Art. Call 213/621-1749 or visit www.moca.org.



Growing Country, Growing Needs— Federal Architecture and Art Richmond, Va.

Through May 27, 2007

This one-time exhibition will showcase the new Richmond courthouse, a series of new U.S. border stations, and a selection of other Design Excellence Program projects that illustrate the government's goal to commission inspiring, contemporary civic architecture that reflects and promotes American ideals. At the Virginia Center for Architecture. Visit www.aia.org.

Gritty Brits: New London Architecture Pittsburgh

Through June 3, 2007

In recent years, a new generation of architects has emerged in London, operating mostly from the postindustrial East End and intimately engaged with the city's contemporary urban condition. Gritty Brits: New London Architecture presents the work of six firms: Adjaye/Associates, Caruso St. John Architects, FAT [Fashion Architecture Taste], Níall McLaughlin, muf, and Sergison Bates architects. At the Heinz Architectural Center. Call 412/622-3131 or visit www.cmoa.org.



Powerhouse: New Housing New York New York City

Through June 16, 2007

This exhibition illuminates the people, projects, and public policies that fuel the affordable hous-

ing landscape in New York City, focusing on the New Housing New York Legacy Project (NHNYP) competition. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

**Open House: Architecture and Technology for Intelligent Living
Los Angeles**

Through July 1, 2007

This exhibition includes nearly 100 teams of emerging designers whose work focuses on technology and domestic architecture. The teams were invited to submit new designs that offer real-life solutions that incorporate the concepts of connectivity, well-being, flexibility, and sustainability. At Art Center College of Design's South Campus Wind Tunnel. Call 626/396-2380 or visit www.artcenter.edu.

**The 2006 National Design Triennial:
Design Life Now
New York City**

Through July 29, 2007

Inaugurated in 2000, the triennial seeks out and presents the most innovative American designs from the prior three years in a variety of fields, including product design, architecture, furniture, film, graphics, new technologies, animation, science, medicine, and fashion. On view throughout the museum campus will be the work of 87 designers and firms, ranging from established design leaders such as Apple Computer, architect Santiago Calatrava, and Nike to emerging designers like Joshua Davis, Jason Miller, and David Wiseman. At the Cooper-Hewitt, National Design Museum. For more information, call 212/849-8400 or visit www.ndm.si.edu.

**Lectures, Conferences,
and Symposia**

**National Landscape Architecture Month
Various Locations**

April 2007

The American Society of Landscape Architects (ASLA) chapters across the country will celebrate with public outreach activities to help communities "Discover Careers in Landscape Architecture," the theme for this year. The month encompasses Earth Day on April 22 and the birthday on April 26 of Frederick Law Olmsted, who founded the American landscape architecture profession. Call 202/216-2371 or visit www.asla.org for further information.

**The 2007 Michael Kalil Lecture on Natural and Technological Systems: Majora Carter
New York City**

April 2, 2007

Majora Carter will talk on the topic of sustainability and environmental justice. Carter is executive director and founder of Sustainable South Bronx, which supports environmental justice through innovative, economically sustainable projects that are informed by the needs of the community. At Parsons The New School for Design. Call 212/229-8919 or visit www.parsons.newschool.edu.

**The 2007 ANSYS U.S. Regional
Conference Series: California
San Diego**

April 3-5, 2007

Simulation has become a critical element of the product development process. The California meeting will provide an overview of the ANSYS technology road map, updates on new product features and product integrations, a management roundtable, customer presentations, workshops and demonstrations, and a full day of product training. Special content for health care, electronics, ventilation, aerospace/defense, and general industries will include user presentations and demonstrations. At the San Diego Marriott Hotel & Marina. Visit www.fluent.com/worldwide/usa/support/ugm07/ca.htm.



**Think New York: A Ground Zero Diary
New York City**

April 5, 2007

With some distance, taking a look at the process which led to the selection of a master plan for Ground Zero offers insights into how obstacles confronting planners, builders, and civic agencies today can be addressed. In his lecture, Rafael Viñoly will lecture using his book as a narrative. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

**Pratt Brooklyn Lecture Series
Brooklyn, N.Y.**

April 5, 16, and 19, 2007

Included in the roster for the Spring 2007 Lecture Series are Henry Cobb on "The Skyscraper as Citizen: The Public Life of Private Buildings"; Henry Smith-Miller on "Resolution"; and Fumihiko Maki on "On Scenery." At Pratt's School of Architecture, Higgins Hall Auditorium. Call 718/399-4304 or visit www.pratt.edu.

**Manufacturing Material Effects:
Rethinking Design and Making in
Architecture International Symposium
Indianapolis**

April 6-7, 2007

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experimental processes of material exploration. The symposium will examine the various levels of engagement and the new forms of architectural production that bring designers deeper into the complexities of making, assembly, and material formulation. Call 765/289-1241 or visit www.bsue.edu.

AIA150

New Housing New York: Panel Discussion with Winning and Runner-up Teams

New York City

April 9, 2007

A presentation of the New Housing New York Legacy Project, which illuminates the people, projects, and public policies that fuel the affordable housing landscapes in New York City. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

The Charles H. Atherton Memorial Lecture Washington, D.C.

April 10, 2007

The Charles H. Atherton Memorial Lecture program commemorates the life and legacy of Charles Atherton, who for almost four decades served as Secretary of the U. S. Commission of Fine Arts. The lecture series is dedicated to providing a forum for discourse on the planning and design of Washington, D.C., and will examine the architectural, historical, and natural context of the city and its development to promote visionary planning and design excellence in the nation's capital. At the National Building Museum. Call 202/272-2448 or visit www.nbm.org.

Greenmaker for Homeowners Chicago

April 10, 2007

A part of the Sustainable Architecture Lunchtime Lecture Series. As the market for environmentally friendly materials continues to grow, the number of companies offering these products follows suit. Greenmaker Supply Company is a Midwestern green building supply company, serving homeowner and building professional alike. Ori J. Sivan will introduce Greenmaker's mission and its offerings, and attendees will receive an insider's view of the environmental benefits of going green. At the John Buck Company Lecture Hall Gallery. For additional information, call 312/922-3432 or visit www.architecture.org.

AIA150

AIA NY 2007 Design Awards Luncheon New York City

April 11, 2007

Award recipients are recognized during the event that brings together 700 leaders in the design world to honor exceptional achievements in design excellence in the three categories: Architecture, Interior Architecture, and Projects. At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

AIA150

Keynote Address and Reception: Michael Rotondi Milwaukee

April 12, 2007

A lecture and reception with Michael Rotondi, FAIA, of RoTo Architecture during National Architecture Week at UWM-School of Architecture and Urban Planning. The event caps a week-long celebration of architecture and community. For more information, call 414/410-2813 or visit www.aiaaw.org

AIA150

Rejuvenation of American Cities on the Water Miami

April 12-15, 2007

The AIA Committee on Design hosts a three-day conference exploring the current urban landscapes of Miami and future design opportunities around Miami and its waterways. At the Standard Hotel. Visit www.aia.org.

RDA Annual Architecture Tour: Southampton Houston

April 14-15, 2007

As one of Houston's most memorable early-20th-century planned neighborhoods, Southampton is distinctive because through the decades houses of architectural significance have continued to be built there. The tour will feature seven houses in this neighborhood, to acquaint viewers with the best examples of architecture, interior design, and landscape design. Call 713/348-4876 or visit www.rda.rice.edu.

Multicultural Modernism Palm Springs

Through April 15, 2007

A retrospective exhibition, featuring the work of Steven Ehrlich Architects. At the Palm Springs

Art Museum. Call 760/325-7186 or visit www.psmuseum.org.

CAF Celebrates Earth Week Chicago

April 16-20, 2007

A week of lunchtime programming in honor of Earth Week includes the following topics: "The Green Greystone: Increasing the Affordability and Sustainability of Chicago's Historic Greystone Housing"; "Environmental Policy: Reduction of Global Warming through the Built Environment"; "The Green Exchange: Building a Business Community for the Advancement of the Green Marketplace"; "Strategies and Design: Achieving 50% Energy Consumption in Commercial Buildings"; and "Sustainability and the Kohl Children's Museum." Call 312/922-3432 or visit www.architecture.org.

Preservation Maintenance: Understanding and Preserving Historic Buildings

San Francisco

April 17-18, 2007

This seminar is held by the National Preservation Institute (NPI) and taught by nationally recognized educators, consultants, and practitioners in historic preservation, archaeology, architecture, landscape architecture, conservation, historical research, restoration, and cultural resource management. Visit www.npi.org for further information.

Coverings Chicago

April 17-20, 2007

The Coverings tile and stone exposition features 1,200 exhibitors from more than 50 countries and attracts more than 33,000 distributors, retailers, fabricators, contractors and specifiers, architectural and design professionals, builders and real estate developers. The expo serves as a resource for continuing education for all categories of attendees, with informative, accredited seminars and live demonstration sessions conducted throughout the four days. At the McCormick Place Convention Center. For more information on attending or exhibiting, call 703/683.8500 or visit www.coverings.com.

Sally Walsh Lecture Houston

April 18, 2007

A collaboration of the Rice Design Alliance, The Houston Architecture Alliance, and the American Institute of Architects, Houston, this lecture is dedicated to the memory of one of Houston's most distinguished interior designers. At Brown

Auditorium, The Museum of Fine Arts, Houston. Call 713/348-4876 or visit www.rda.rice.edu.

Downtown Third Thursdays Lecture Series

New York City

April 19, 2007

The series celebrates Lower Manhattan's architectural treasures and history by presenting discussions with best-selling authors and world-renowned experts in thematically connected settings. Mary Dierickx, architectural preservationist and author, will speak on the topic of "Forgotten Splendor: Restoring Downtown's Historic Architecture." At Federal Hall National Memorial. For additional information, visit www.downtownny.com/third.

Design Showcase 2007 Newark, N.J.

April 19, 2007

This is a networking event, recruitment fair, and exhibition for the real estate and design communities. Industry sponsors will promote their goods and services; architectural firms will recruit students; and alumni will showcase their designs. At the New Jersey School of Architecture at NJIT. For more information, call 973/596-5531 or visit www.njitdesignshowcase.com.



Brandism Series: Signature as Brand New York City

April 24, 2007

Signature-branded buildings, instantly linked to the prestige and aptitudes of their authors, transform the star-power of the architect into a material commodity. As more and more star architects are being hired for their selling potential, can architects maintain innovative and creative practices in the economic pressures of facsimile? At the Center for Architecture. Call 212/683-0023 or visit www.aiany.org.

The Rhodex ASID Student Chapter Interior Design Educational Symposium Online

April 27-28, 2007

An opportunity to enhance learning by participating in "real-time discussions" with interior design professionals and educators from around the globe. Topic discussions related to green issues, residential and commercial design, lighting, and computer-aided-design programs will all be presented by experienced professionals and educators. For more information, visit: http://www.geocities.com/rhodex_asid_sc_events/2007_design_day_symposium.htm l.



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AIA 2007

National Convention and Design Exposition San Antonio

May 3–5, 2007

The convention theme, "Growing Beyond Green," spotlights sustainable design, how you can green your projects, educate your clients, and reduce the impact buildings have on the environment. Visit www.aiaconvention.com.

Greening Chicago's Municipal Buildings Chicago

May 8, 2007

This is a part of the Sustainable Architecture Lunchtime Lecture Series. Chicago's city government has made a significant commitment to greening its facilities. Join Department of General Services Architect Andrea Love as she offers an overview of several projects both completed and in progress. At the John Buck Company Lecture Hall Gallery. Call 312/922-3432 or visit www.architecture.org.

BKLYN DESIGNS 2007

Brooklyn, N.Y.

May 11–13, 2007

Celebrating its five-year anniversary, the show will take place in multiple venues throughout the DUMBO neighborhood, including St. Ann's Warehouse and the Smack Mellon Gallery. This year will also mark the launch of BKLYN DESIGNS +, a new cash-and-carry accessories market. Call 718-243-1414 or visit www.bklyndesigns.com.

GPD China 2007

Shanghai, China

May 14–15, 2007

This conference, with the theme, "Production Process Efficiency and Quality—From Design to Construction," takes place just before the China Glass Exposition, Glass Processing Days. Call 358 3 372 3225 or visit www.gpd.fi.

Downtown Third Thursdays Lecture Series

New York City

May 17, 2007

The ongoing series celebrating Lower Manhattan's architectural treasures and history will feature Barbara Christen, architectural historian and Cass Gilbert scholar, speaking on "Cass Gilbert and History: The Past as Present." At the

New York County Lawyers' Association. For more information, visit www.downtownny.com/third.

Architecture Camp Pittsburgh

June 25–August 17, 2007

Architecture Explorations, a series of one- and two-week camps dedicated to architectural design, construction, form, and function, and presented in collaboration with Carnegie Mellon University's School of Architecture, are available for children ages four to 13, as well as high school students. The architecture camps are held at Carnegie Mellon University's architecture studios and in the Carnegie Museum of Art's Heinz Architectural Center. Call 412/622-3131 or visit www.cmoa.org.

Competitions

Open Architecture Prize

Deadline: Ongoing

The \$250,000 Open Architecture Prize is the largest prize in the field of architecture and is designed to be a multiyear program that will draw competition from design teams around the world. Each year, a winning design will be selected from a field of low-cost, sustainable design projects and built in a selected community. The first project for the Open Architecture Prize will be an "e-community center," a centralized building equipped with Internet connectivity solutions designed to enable an entire community to access the transformative power of the Internet. The winning designs will be built as part of the prize and in alignment with the 50x15 Initiative, a program founded by AMD to connect 50 percent of the world's population to the Internet by 2015. For more information, visit www.50x15.com.

Grangegorman Architectural Competition

Competitions Deadline: April 2007

An international architecture competition for the development of a modern new campus, along with health and other facilities at Grangegorman, a 74-acre site close to the city center of Dublin. This invitation is open to all architectural firms, joint ventures, or consortia of architects, as eligible under EU Directive 2005/36/EC or comparable registration recognized by a national government. Visit www.grangegormandevlopmentagency.ie.

Envisioning Gateway: A Public Design Competition for Gateway National Park

Submission Deadline: May 7, 2007

An international public design competition to create a new vision for Gateway National Recreation Area, a 26,000-acre national park located in New York. The goal is to generate innovative, visionary, and compelling designs that reflect the area as a regional resource and national environmental asset. Visit www.vanalan.org/gateway.



AIA Columbus Announces Transit Design Competition

Deadline: May 29, 2007

The competition will generate dialogue about the possibilities for the role of public transportation in Columbus with special emphasis on illustrating how multiple transportation modes can work together to provide a complete network that connects citizens with their community and sparks economic development. The competition will look for solutions for three specific sites prime for transportation infrastructure enhancements. For additional information, visit www.columbusrewired.org or call 614/469-1973.

Shrink This House

Deadline: June 15, 2007

This competition is open to all architects and architecture students. The winning entries will be published in the September-October issue of Florida Insideout Magazine. The program challenges the participants to take a 5,687-square-foot, two-story modern house going up in Miami Beach and, in expectation of high energy prices and an aging population in 2025, shrink it, creatively, to 2,000 square feet. For images, floor plans, and specs, visit www.floridainsideout.com or call 305/532-7027.

Heated Issue

Deadline: June 17, 2007

This competition asks participants to create an educational campaign to raise public awareness of the problem of global warming and the contribution of our daily lifestyle and activities to this phenomenon. The aim of the campaign is to provoke people to think about the issue and how their individual consumer choices and energy consumption enter into the equation. To learn more, visit www.design21sdn.com.

Child's Play

Deadline: June 17, 2007

This competition focuses on children and asks designers to create an affordable object (or objects) that encourage children to cultivate their own imagination and creativity. The function is

open to interpretation and the objective of the design should be to encourage exploration and to inspire a child to derive his/her own associations and invent their own interaction or way of playing with the object. Visit www.design21sdn.com.

Shelter Me

Deadline: June 17, 2007

In the past two years, widespread catastrophic events have called forth large-scale relief efforts throughout both urban and rural areas of the world. Shelter Me challenges designers to present a cost-effective short-term shelter that is affordable, lightweight, strong, and easily deployed. Visit www.design21sdn.com.

21st International Excellence on the Waterfront Awards

Deadline: June 29, 2007

This program will honor waterfront projects, plans, citizen efforts, and student awards. Winners will be announced on November 2 during the "Urban Waterfronts 25: the Next Wave" conference at the Seaport Hotel in Boston. For program details and entry forms, call 202/337-0356 or visit www.waterfrontcenter.org

Just Jerusalem

Deadline: December 31, 2007

This competition invites participants worldwide to submit urban plans and other creative works that consider novel ways to transform this fractious city into a place where contending ideas and citizenries coexist in peaceful ways. An international panel of diplomats, researchers, and professionals will jury the competition. The winning participants will be awarded fellowships at MIT, a prize equivalent to \$50,000. Visit www.mit.edu/cis/jerusalem2050/.

Project New Orleans Call for Submissions

Ongoing

Project New Orleans is seeking to compile a record of all architectural and planning proposals created for the post-Katrina rebuilding of New Orleans. Submissions are welcome, both written and graphic, from the architectural to the regional, and from all engaged in thinking about the future of the city in physical terms. Visit www.project-neworleans.org.

E-mail event and competition information two months in advance to elisabeth_broome@mcgraw-hill.com.



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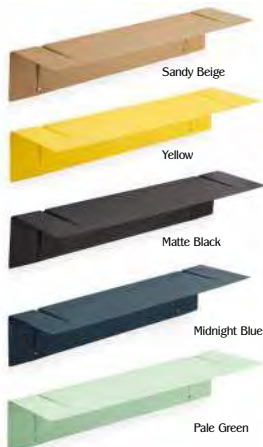
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For applications and further information, visit www.rvatr.com

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Program title: "Transformative Tools Start to Take Hold," Architectural Record (04/07, page 155).

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Record Interiors 2007

The editors of ARCHITECTURAL RECORD announce this year's RECORD INTERIORS awards program.

Entry is open to any architect registered in the U.S. or abroad. Of particular interest are projects that incorporate innovation in program, building technology, and use of materials. (Note: If the architect also designed the building exterior, we will not consider the project for our Interiors issue.) The entry fee is \$65 per submission; please make checks or money orders payable to ARCHITECTURAL RECORD. (Sorry, we cannot accept credit cards or wire transfers.) Submissions must also include plan(s), section(s), photographs (prints or large-format transparencies, but **no** slides), a brief project description, and this official entry form—all **firmly bound** in a 9-by-12-inch folder. Ring, spiral, perfect, or book binding, as well as portfolios with attached sleeves are all acceptable options, but entries that arrive as a collection of loose pages will be disqualified.

Your submission must be postmarked no later than April 30, 2007. Winning entries will be featured in

RECORD INTERIORS 2007. Other submissions will be returned or scheduled for a future issue. Kindly allow 10 weeks for notification. Please be sure to enclose a self-addressed envelope with appropriate postage or return air bill.

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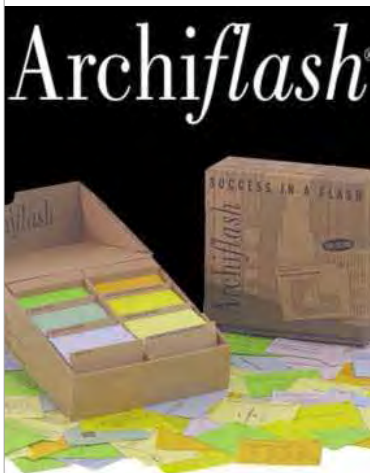
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Get the NEW 6th Edition. Celebrating Over 13 years of Success. Prepare for the Architect Registration Exam with Archiflash. Each set contains 1,152 expertly written flashcards covering all six multiple choice tests: Pre-design, General Structures, Lateral Forces, Mechanical & Electrical Systems, Building Design/Materials & Methods, and Construction Documents & Services. Learning is easy with time-saving charts, definitions, diagrams, and multiple choice Q & A. More information than you ever thought possible in an easy-to-use flashcard format. Only \$109.95. Individual divisions available for \$27.00 each.

800-411-7314
www.archiflash.com

| Circle Reader Service #151

Concrete Acid Stain

Kemiko Concrete Floor Stain



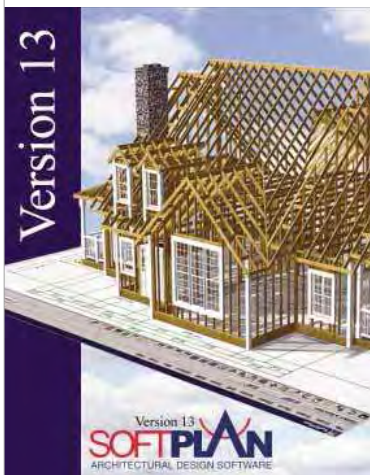
Kemiko offers a concrete acid stain available in eight rich colors that chemically reacts with the concrete in interior or exterior projects on new or existing concrete. Specifiers can choose Kemiko Stone Tone Wax or Kemiko Sealers as a finishing process. Kemiko is permanent, cost effective, and easy to maintain.

903-587-3708
www.kemiko.com

| Circle Reader Service #154

CAD Software

SoftPlan Architectural Design Software



SoftPlan is one of the industry's leading residential CAD software packages. Now in its 13th release, SoftPlan allows architects to create house plans in a fraction of the time taken to draw by hand or using a conventional CAD package. Using the latest technology, SoftPlan gives the flexibility to create complex, custom drawings with speed, accuracy, and ease. Quickly and easily create floor plans, elevations, cross sections, photo-realistic 3D renderings, material lists, and more!

800-248-0164
www.softplan.com

| Circle Reader Service #152

Hanging Hardware

Arakawa Hanging Systems



Arakawa Grippers are specified by architects looking to implement clean designs that offer users quick installation and easy adjustability. Arakawa Grippers are typically used for hanging shelves, signs and hangrods in retail environments, for hanging art in museums and galleries, and for connecting balusters in balconies and stairs. Fax number 503-236-0427

503-236-0440
www.arakawagrip.com

| Circle Reader Service #155

Tension Rods

Decon USA, Inc.



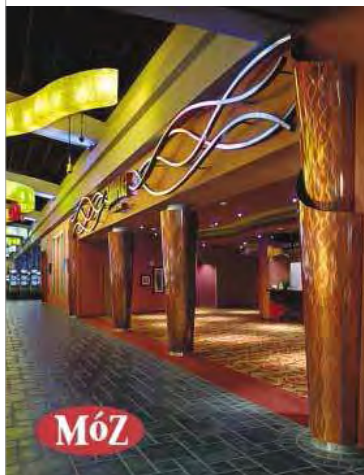
Macalloy Bar and Cable Systems: Available in both carbon and stainless steel. The strength and aesthetic qualities of Macalloy Tension Rods are evident. High strength material allows use of smaller diameters, preferred by Architects and Engineers. Airports, Museums and Stadiums incorporate Macalloy Tension Rods, pushing the envelope of modern structures.

866-783-7245
www.deconusa.com

| Circle Reader Service #156

Column Cover Systems

Móz Designs, Inc.



Móz Column Cover Systems are prefabricated to offer easy installation and come in a variety of shapes including round, oval and tapered. Their Column Covers stand up to heavy traffic and are available with new durable Special Finishes. Móz offers 12 unique patterns, 16 standard colors and their metals are expertly handcrafted. Let their value engineering team transform your ideas and concepts into solutions for dynamic environments.

510-632-0853
www.mozdesigns.com/ar1

| Circle Reader Service #159

Pre-Engineered Door Hardware

HDI Railings



From minimalist simplicity to stylish sophistication, HDI offers pull handles to suit every taste. Featuring nearly 60 distinct designs made from stainless steel, wood, glass and stone, you're sure to find a solution to your need. Many pull handles come in a variety of sizes, and the HEWI CombiSystem features a patented method of adjustment, allowing easy installation on existing doors.

717-285-4088
www.hdirailings.com

| Circle Reader Service #157

Quality Certification Program

Architectural Woodwork Institute



Savvy designers know that custom architectural woodwork adds a sophisticated statement to any project. That's why the specification for custom woodwork should include compliance with the AWI Quality Standards during the fabrication, finishing and installation when inspected. When you specify the use of AWI Quality Certification Program labels and/or certificates for your woodwork project, you also have access to QCP representatives who can answer technical questions or evaluate the woodwork per the contract team's request.

571-323-3636
www.awiqcp.org

| Circle Reader Service #160

Perforated Metal & Metal Grating

Hendrick Screen Company



Setting a new standard for perforated metal and metal grating, Hendrick Metals offers unlimited applications including grating and grilles, curved grating, and facades, building sun shades, wall and ceiling cladding, column covers, railing in-fill panels, signage, custom interior panels, ventilation and aesthetic screening for building mechanicals and equipment. Contact Hendrick Screen at 270-685-5138.

800-225-7373
www.perfscreen.com

| Circle Reader Service #158

Exterior Window Shutters

Copper Moon Woodworks



For those homeowners looking for a distinctive, signature look, Copper Moon Woodworks offers ten totally new designs of exterior window shutters ranging in theme from Gothic to Whimsical. All are constructed of solid African Mahogany and detailed with pewter, copper, and hand-forged hardware.

610-434-8740
www.coppermoonwoodworks.com

| Circle Reader Service #161

Structural Framing Solutions

iLevel by Weyerhaeuser



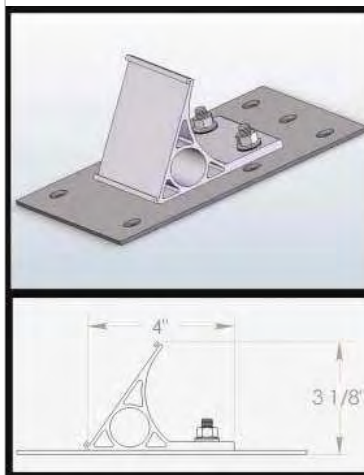
TimberStrand® LSL is one part of a complete and integrated package of framing materials available from iLevel™ by Weyerhaeuser—from foundation to rooftop—which include trusted products and brands such as Trus Joist® Parallam® parallel strand lumber (PSL), TJI® joists, Structurwood® panels and Weyerhaeuser Premium Joists™.

888-iLEVEL8
www.iLevel.com

| Circle Reader Service #162

Extruded Aluminum Snow Guard

Alpine SnowGuards



Alpine SnowGuards' #90 snow guard can be used on just about any roof. It accepts a color insert to match the roof. A stainless steel base plate allows this snow guard to be used on membrane or metal roofs. Without the base plate it can be used on most shingle roofs.

888-766-4273
www.alpinesnowguards.com

| Circle Reader Service #165

Columns, Balustrades & Cornices

Melton Classics



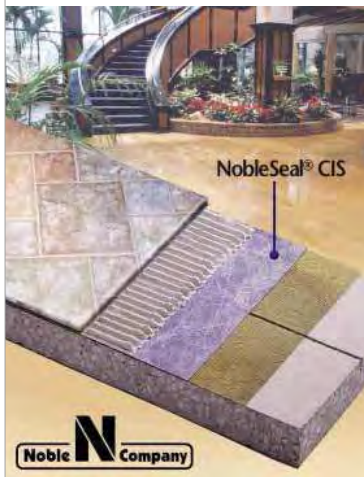
Melton Classics provides the design professional with the most comprehensive selection of quality architectural products in the industry, including architectural columns, balustrades, mouldings, cornices, and a wide array of architectural elements. Architectural columns are available plain or fluted, load-bearing or column covers, round or square in fiberglass, fiberglass/marble composite, synthetic stone, cast stone, GRC, and wood for paint or stain. Melton Classics offers a maintenance free balustrade product ideal for any application.

800-963-3060
www.meltonclassics.com

| Circle Reader Service #163

Helps Prevent Cracked Tile

Noble Company



NobleSeal® CIS is a sheet membrane that protects thin-set ceramic and stone tile from cracking. CIS can be used over common substrates including gypsum underlayments and many wood sub floors. It's a proven performer with millions of square feet installed. CIS has been tested for "System Crack Resistance" in accordance with ANSI A118.12, and is rated "High Performance". Noble Company also produces sheet membranes for waterproofing and sound control. For more information, call 800-878-5788 or visit www.noblecompany.com.

800-878-5788
www.noblecompany.com

| Circle Reader Service #166

Coconut Palm Flooring & Plywood

Smith & Fong



Durapalm is made from 100% reclaimed plantation-grown coconut palms. Ranging in color from dark to medium-red mahogany and containing no added formaldehyde, these durable and uniquely beautiful products are available in tongue-and-groove planks as well as architectural grade sheet goods.

866-835-9859
www.durapalm.com

| Circle Reader Service #164

Extreme Performance Insulating Glass

AZON USA INC.



Warm-Light® spacer for insulating glass provides a more comfortable interior environment, reduces thermal conductivity and condensation on the glass surface while lowering utility costs. Azon is the global leader in developing technology for the manufacture of thermal barrier aluminum fenestration, commonly referred to as the pour and debridge method.

800-788-5942
www.warmedge.com

| Circle Reader Service #167

Stained Glass for Hurricane & Earthquake Codes

Bovard Studio Inc.



Bovard Studio Inc. Stained Glass has developed a proprietary process for laminating stained glass onto large panels of 1/2-in. laminated tempered glass to meet hurricane and earthquake codes. Pictured: West Angeles Cathedral's 108-ft.-high stained glass tower with its 652-ft.-long by 8-ft.-high stained glass clerestory band. Visit their Booth #17176 at the 2007 AIA Convention in San Antonio, TX, May 3-5, 2007.

800-452-7796
www.bovardstudio.com
AIA Booth #17176

| Circle Reader Service #168

Translucent Daylighting

Kalwall Corporation



From a world leader in translucent daylighting comes over 50 years of innovation and performance. Skylights of every imaginable configuration, from massive Clearspans of 150-ft. to small Pyramids. Curtainwalls and Window Replacement Systems. Kalwall is renowned for its balanced, diffuse daylight that fills any space with glare-free, shadow-free daylight. Kalwall Systems offer extensive support services such as daylight modeling and fully meet the most demanding code and performance testing with exceptional structural integrity. Green and LEED®.

800-258-9777
www.kalwall.com

| Circle Reader Service #171

Custom Sized Shoji & Doors

Cherry Tree Design



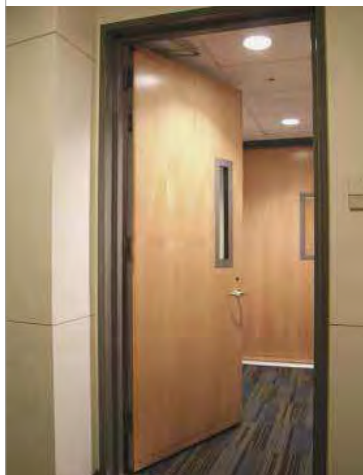
Consider Cherry Tree Design's 80-in., 96-in. or custom sized shoji and doors to lend beauty and functionality to a broad range of interior decors. Their new 96-in. stock shoji is a perfect solution for a high ceiling room or large commercial space. For closet doors, room dividers, pocket doors or patio door coverings, over 90 different shoji packages are offered and include everything you need for installation.

800-634-3268
www.cherrytreedesign.com/ar.html

| Circle Reader Service #169

Special Purpose Doors & Windows

Krieger Specialty Products



Krieger doors and windows can be manufactured for various sizes and performance requirements, including acoustical, bullet resistance, blast resistance, thermal protection, radio frequency shielding and hybrid combinations. Various finish and hardware options are available, and frames can be custom made to fit any wall configuration.

800-251-5256
www.KriegerProducts.com

| Circle Reader Service #172

Anti-Reflective Glass

IGT Glass



Luxar anti-reflective glass is perfect for any glass application where glare and reflection are not wanted. Luxar reduces glare and reflection to less than 0.5%. It is perfect for museums, store fronts, stadiums, restaurants, projection rooms and display cases. It is available on low iron float glass for maximum clarity in 2mm to 12mm thicknesses to meet any project requirement.

480-767-8220
www.luxar.ch

| Circle Reader Service #170

Curved Translucent FRP Panel Systems

Major Industries, Inc.



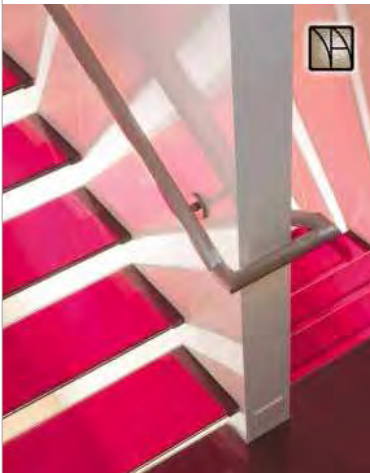
Looking for unique design possibilities? TransCURVE™ translucent building panels from Major Industries provide quality daylighting and exceptional performance with the added benefit of a striking, unique appearance. TransCURVE™ panels feature a premium architectural-grade FRP exterior skin that blocks damaging UV rays while wrapping your building's occupants in the glow of glare-free natural light. Let them show you how their skilled staff and field-proven daylighting products can enhance your next project.

715-842-4616
www.majorskylights.com

| Circle Reader Service #173

Treads in Red

Nathan Allan Glass Studios Inc.



Two layers of tempered glass, with exclusive Nathan Allan Glass Sandpaper on the walking surface. Glass Sandpaper is highly rated through ASTM D2047 testing for both wet and dry conditions. Their unique bright Red color finish is added to the underside of the glass treads to complete this unconventional stairway. Architect: Mark Pynn, Idaho. Contractor: Ken Herich, Idaho. Email: bm@nathanallan.com

604-277-8533 ext. 225
www.nathanallan.com

| Circle Reader Service #174

Trimless... With Invisible Hinges

Studco Building Systems US



EZY Jamb... Now even better. The combination of a trim-free and invisible hinge gives the flush finish door jamb system the look that has been sought after for many years. EZY Jamb is a split-type jamb manufactured from cold rolled steel to produce a strong and secure assembly. The patented jamb comes with perforated sides for flush finishing giving the doorway a clean line look. Fax number 585-265-6678 Email mail@studcosystems.com

800-675-8023

| Circle Reader Service #177

Solar Control Glass

Oldcastle Glass



Exclusive, new SunGlass™ Solar Control Glass delivers the beauty of the sun without the heat. Now architects can specify a neutral color glass that invites the sun in without making building occupants sweat. That's because SunGlass™ delivers a combination of unprecedented solar control and visible light transmittance. It's the look you want with the performance you need.

866-OLDCASTLE (653-2278)
www.oldcastleglass.com

| Circle Reader Service #175

Doors for Interior Architecture

Woodfold Mfg., Inc.



Some will say that nothing is more beautiful than wood. Woodfold Mfg., Inc. would agree. Woodfold Mfg., Inc. custom made accordion and roll-up doors (available in hardwood and non-hardwood finishes as well) are both functional and beautiful. Woodfold Mfg., Inc. has models available for use as sight, security, and acoustic applications. Its solid hardwood roll-up doors coil conveniently overhead. And, to assure on time completion of your projects, Woodfold Mfg., Inc. has the industry's best production cycle. Fax number 503-357-7185

503-357-7181
www.woodfold.com/AR

| Circle Reader Service #178

Sustainable Commercial Entrance Products

Special-Lite, Inc.



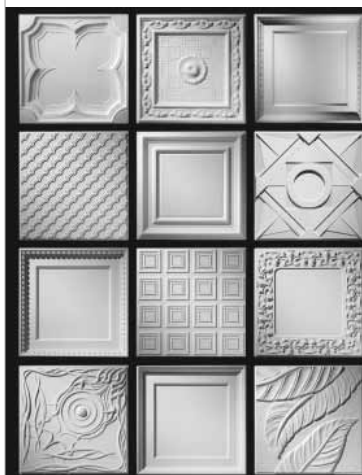
Special-Lite provides the single, sustainable solution to the multiple challenges of school and commercial entrances. Attractive entryways for all architectural styles; GREENGUARD Certification for Indoor Air Quality; superior thermal performance; no need to finish or refinish; cannot rust, crack, split, peel or rot; extends life of entire entrance; Low maintenance requirements. To learn more, visit their website or request their Green and Educational Facilities brochures.

800-821-6531
www.special-lite.com

| Circle Reader Service #176

Ornamental Plaster Ceiling Tiles

Above View Mfg., By Tiles, Inc.



Above View ornamental plaster ceiling tiles are fabricated from a non-toxic, non-combustible, proprietary composition. They drop into any standard 15/16-in. T-Bar grid system. There are more than 50 standard designs, custom design work, and 1,300 custom colors and faux finishes available upon request.

414-744-7118
www.aboveview.com

| Circle Reader Service #179

Decorative Mouldings

Architectural Products by Outwater, LLC



Outwater introduces Wood Plus, a new line of decorative mouldings that afford the look, quality and elegance of the finest plaster and wood mouldings at the cost of inexpensive, unfinished pine mouldings. Comprising a premium grade, solid wooden core, Wood Plus is fused with a durable, smooth polymer bonding that can be painted, glazed or faux finished without priming. Offered in a variety of designs ranging from simple to highly ornate, Wood Plus will augment the beauty and refinement of any room. Sold in 9-ft. lengths, quite simply, there is no minus to Wood Plus. Free 1,100+ Page Master Catalog.

800-835-4400
www.outwater.com

| Circle Reader Service #180

Custom-Molded Architectural Shapes

Formglas



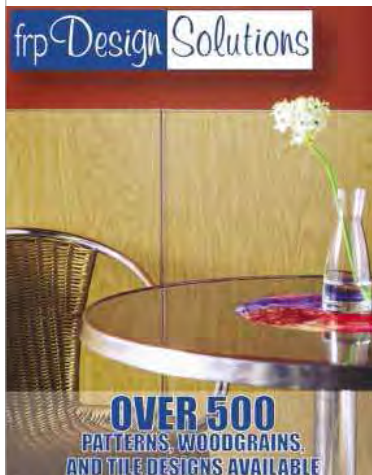
Custom-molded architectural shapes by Formglas expand design opportunities for interiors and exteriors. Lightweight and durable GRG and GRC components are cast in an endless array of shapes, textures and color finishes. The Formglas team of trained professionals work with you to find practical and easy-to-install solutions that enhance aesthetic appeal. Email info-ar2@formglas.com

416-635-8030
www.formglas.com

| Circle Reader Service #183

Decorative Wall Panels

Crane Composites, Inc. (formerly Kemlite Company, Inc.)



frpDesign Solutions is a family of decorative wall panels that provides an alternative to traditional wall coverings such as ceramic tile, wood paneling or vinyl wall coverings. Offering both functionality and design, products in the frpDesign Solutions line are made of a moisture-resistant frp panel with a decorative finish that includes myriad colors, patterns, and woodgrains, as well as a tile-look panel. Available with over 500 choices, frpDesign Solutions is easy to install and maintain. For more information, visit Kemlite on the web.

800-435-0800
www.frpdesignsolutions.com

| Circle Reader Service #181

Cast Metal Wall Surfacing Material

Gage Corporation, Intl.



Gagecast® is a cast metal wall surfacing material suitable for a variety of interior architectural applications where patterns that feature high luster, relief, durability, and cost effective installation are a requirement. Twenty-eight designs are standard, however, custom collaboration is encouraged. Gagecast® is one component of Gage Vertical Surfacing. Contact the factory for product literature and selected samples.

800-786-4243
www.gageverticalsurfacing.com

| Circle Reader Service #184

Slate Countertops

Evergreen Slate Company



The rich depth and warmth created by the natural color and texture of Vermont and Welsh slate provides a distinctly comforting feeling to interior spaces. Its honed finish provides stain resistance and a luxuriously rich feel. Evergreen offers nine colors and six edge profiles for countertops, backsplashes, sinks, stair treads and risers, and fireplace surrounds, as well their cladding, flooring and roofing products. Imagine it and they will create it.

866-USA-SLATE
www.evergreenslate.com
AIA Booth #14225

| Circle Reader Service #182

Sports Floors

Haro Sports Floors



Athletes shouldn't suffer through injuries due to a poor performing sports floor. Athletic Floor Systems provides the best performing, safest and lowest cost gymnasium floors available. AFS supplies sports floors for competition gyms, sports arenas and multi-purpose facilities. There are more than 7500+ installations in over 65 countries. Demand performance, safety and low cost in your next sports floor.

800 323 6792
www.haro-usa.com

| Circle Reader Service #185

Green Roof Systems

Homasote Company



Homasote Company, one of America's leading green building products manufacturers and nailbase roof insulation's originator, has received Factory Mutual approval for N.C.F.R.® Thermasote® on steel roof decks. Use it to specify attractive, residential-looking roofs for multi-family, mixed-use, commercial, medical and other construction. For an alternative green roof system, excellent for conventional and LEED® construction, specify Firestall® Roof Deck with N.C.F.R. Thermasote. Wind uplift tests show these Homasote® systems make code in wind-prone areas.

800-257-9491 Ext. 1211
www.homasote.com/thermasote

| Circle Reader Service #186

Porcelain Tiles

Viva Ceramica



With three solid colors, brown, black and white, in porcelain through-bodied tiles with softly rough surfaces reminiscent of cast iron, you can't get more classical than this! Super simple patterns make this a series that's perfect for the most contemporary of elegant homes today. Available in the 8"x24" and 24"x24" sizes, the tiles are edge-ground and thus naturally modular, born to be installed edge to edge.

www.cerviva.it

| Circle Reader Service #189

Paint & Anodize Finishes

Linetec



Linetec offers "Introduction to Coatings: Field Performance and the Application Process" as a registered online learning program to help you attain your AIA Continuing Education credits. This program compares the field performance of architectural Kynar®/Hylar® paint, anodize and powder coat finishes. Also covered are the steps associated with each application process. The presentation is available on-demand from Linetec's Architect Resource Center located at www.linete.com.

888-717-1472
www.linete.com

| Circle Reader Service #187

Architectural Signage

APCO Sign Systems



For 40 years, APCO has been a leader in the design and manufacturing of modular sign systems. Their product line includes interior and exterior sign systems, directories, displays, sign-making software, and ADA-compliant solutions. Each line is backed with commitment, quality, and innovation. With headquarters and manufacturing in Atlanta, APCO has offices across the nation and worldwide.

887-988-APCO
www.apcosigns.com

| Circle Reader Service #190

Architectural Surfaces

SOLI



SOLI offers one-of-a-kind architectural surfaces for traditional and contemporary applications. From metal to marble, granite to glass, SOLI products bring distinctive design to floors and walls, indoors and out. They also offer a variety of unique porphyry, cobblestones and pavers. View their extensive collection of innovative tile and natural stone at www.soliusa.com.

800-410-7654
www.soliusa.com

| Circle Reader Service #188

Architectural Sheetmetal Products

CopperCraft



Structural integrity and performance are as important as aesthetics. Applying this understanding to the manufacture of its products is what sets CopperCraft apart from the competition. Their design, engineering, testing, and fabrication methods meet stringent structural and performance standards. You get unsurpassed quality, delivery, and custom service including a nationwide network of representatives. Their complete line of high quality architectural sheetmetal products include ornamental dormers, roof vents, roof drainage products, conductor heads, steeples, cupolas, and spires.

800-486-2723
www.coppercraft.com

| Circle Reader Service #191

Canopies & Walkway Covers

CPI Daylighting Inc.



CPI provides single source responsibility for the entire Clearspan Canopy structure from the ground up. CPI's new Clearspan design for translucent canopies and walkway covers offers an economical, functional design with unequaled aesthetic appeal. Clearspan provides an excellent shelter and gives an open-air feeling by allowing natural daylight through to light up the area below.

800-759-6985
www.cpidaylighting.com
AIA Booth #2619

| Circle Reader Service #192

Green Waterfalls

Harmonic Environments, Inc.



Harmonic Environments is the only waterfall manufacturer to offer ZonePure™ water purification systems with every waterfall, making their products uniquely suited for healthcare, hospitality, offices, or anywhere clean and healthy water features are desired. Each custom waterfall can be created using environmentally friendly materials.

800-497-3529
www.HarmonicEnvironments.com

| Circle Reader Service #193

Surface Protection

PERMA-CRETE®



ICC approved PERMA•CRETE® surfaces provide architectural, load-bearing strengths of over 6,000 PSI compressive strength and are sealed, nonporous, and chemically resistant to solvents, stains, temperatures and UV rays. The products can be applied over most surfaces including building exteriors, driveways, sidewalks, bridge decks and pool interiors. PERMA•CRETE® renews instead of removes, enhances property values, and is a cost-effective way of eliminating surface deterioration and costly maintenance

800-607-3762
www.permacrete.com

| Circle Reader Service #194

Shelters, Gazebos & Pavilions

PorterCorp



Permanent umbrellas designed to withstand 90-mph winds are just one of the many innovations at PorterCorp, makers of Polygon Park Architecture and Parasol Fabric Covered Shade Shelters. A history of attention to design details, quality workmanship, and one of the best frame finishes available have put PorterCorp at the forefront of expanding the concept of 'pre-fab' structures. That concept now includes a complete line of steel, fabric-topped, and glulam shelters. Log on to PorterCorp's web site for full details.

800-354-7721
www.portercorp.com

| Circle Reader Service #195

Art Presentation

Walker Display Incorporated



Life's all about change and so is Walker Display when it comes to art presentation. The Walker system frees you to explore all your options. No-More-Holes frees you to rearrange your artwork with ease and speed. Embrace change.

800-234-7614
www.walkerdisplay.com

| Circle Reader Service #196

Assembled Storage for Books & Binders

Aurora by Richards-Wilcox



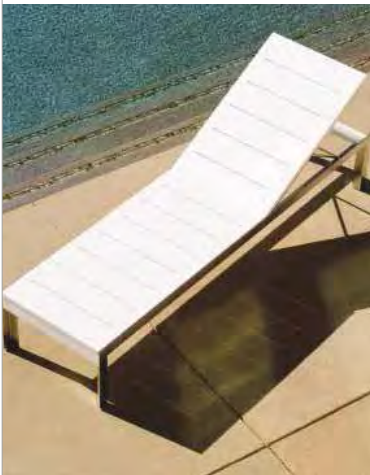
The Aurora Bookcase is all about versatility for storage of books, binders and miscellaneous items. Developed to pair with lateral cabinets, the bookcase comes in two heights (41-5/8-in., 65-5/8-in.) and four widths (30-in., 36-in., 42-in., 48-in.). It features more depths than most standard bookcases (9-in., 10-in., 12-in., 13-in., 15-in. 16-in., 18-in.) with shelves adjustable on 1-1/2-in. centers. For more information contact Aurora Storage on their toll free line, 800-877-8456 or visit them online at www.aurorastorage.com.

800-877-8456
www.aurorastorage.com

| Circle Reader Service #197

Clean-Lined Outdoor Furniture

Modern Outdoor



Spring is once again upon us—the perfect time to experience the great outdoors. Modern Outdoor offers four complete lines of high-style, clean-lined, environmentally conscious outdoor furniture for your outdoor space projects. The Modern Outdoor Collections are commercial grade products designed for use in all manner of public spaces—restaurants, hospitality, parks, resorts, hotels...yet with an aesthetic that is perfect for a residential client's backyard setting. View the entirety of their collection online.

818-785-0171
www.modernoutdoor.com

| Circle Reader Service #198

Custom Made Light Fixtures

CPLIGHTING



CPLIGHTING offers a wide variety of custom made acrylic and metal decorative light fixtures designed by Christopher Poehlmann. The new BigShade Pendant is perfectly suited for hotels and restaurants as well as residential use. Measuring 34-in. in diameter by 15-in. high, this cable-suspended fixture is lamped with a 100W type G bulb providing excellent illumination without hot spots. Visit their web site www.cplighting.com to see the complete line of CPLIGHTING fixtures including the newGROWTH aluminum tree branch chandelier and other custom designs.

866-597-4800
www.cplighting.com

| Circle Reader Service #291

Garage Organization Solutions

Rubbermaid Building Products



Rubbermaid's Garage Organization System features rail-mounted modular storage units that can be customized and refigured to meet your specific needs. Laminated wood cabinetry hangs off the FastTrack® rail to keep all cabinets off the floor, away from dirt and water. The rail installs quickly into drywall, concrete, or brick and supports up to 2,000 lb. Rubbermaid stands behind its products with a lifetime warranty.

866-533-1197
www.rubbermaidpro.com

| Circle Reader Service #199

Large Lighting for Large Spaces

Engineered Lighting Products



These extruded, A15 fixtures are 7-1/4-in. by 25-5/8-in. by 28-in. They tilt for precise aiming of the asymmetric beam and can be secured in place. Interior and exterior wet location styles are available in one or two lamp configurations for Metal Halide, HPS or Fluorescent models. Fax number 626-579-6803 Email elp2@aol.com

626-579-0943
www.elplighting.com

| Circle Reader Service #292

Electric Radiant Heating Cable

Orbit Radiant Heating



Orbit Radiant Heating specializes in maintenance-free electric radiant heating systems that feature Nexans TXLP heating cable. Manufactured in Norway, the cable is designed to withstand the rigors of harsh outdoor use for snow- and ice-melting. The integrated sensors and controls along with specific application design assure the lowest first and operational cost and maximum safety. Indoors, designers prefer Orbit systems because they operate silently, are non-allergenic, safe, and require no boiler capacity or mechanical room space.

800-522-3986
www.orbitmfg.com

| Circle Reader Service #290

Architectural Ceiling Fans & Lighting

G Squared Art



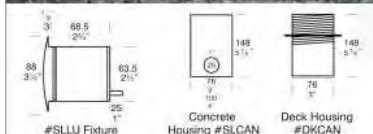
Balanced design that is light and airy. Moving sculpture... The San Francisco ceiling fan—a GOOD DESIGN Award winner. Whisper quiet, powerful, reliable and beautifully made, this timeless design is also available with a light kit and can be used on 8 ft. ceilings or on cathedral ceilings with optional downrods up to 6-ft.-long. Suitable for sloped ceilings up to 29 degrees. Lifetime warranty. To buy high-design architectural fans and lighting please visit G Squared Art's website or call them M-F 7 a.m. to 5 p.m. PST.

877-858-5333
www.g2art.com

| Circle Reader Service #293

Low Profile Step Light

Hunza Lighting



The Hunza Step Lite Louver is an outdoor/indoor step lighting fixture with 45-degree angled louver trim that provides glare control with very low profile. The canister mounting system ensures easy installation and clean appearance free of any visible mounting screws. Finish choices include solid copper and 316 stainless steel.

310-560-7310
www.hunzausa.com

| Circle Reader Service #294

Self-Locking Gate Latch

D&D Technologies



Lokk-Latch PRO®—SL provides self-locking and self-latching security in a latch that won't rust, is horizontally and vertically adjustable, and features a 6-pin re-keyable lock. Formed of super-strong engineering polymers with stainless steel components, it fits metal, wood and vinyl gates. A key is required to enter and exit (institutional function). Only one hole is drilled to connect the internal and external units. The latch fits posts up to 6-in.

800-716-0888
www.ddtechglobal.com.

| Circle Reader Service #297

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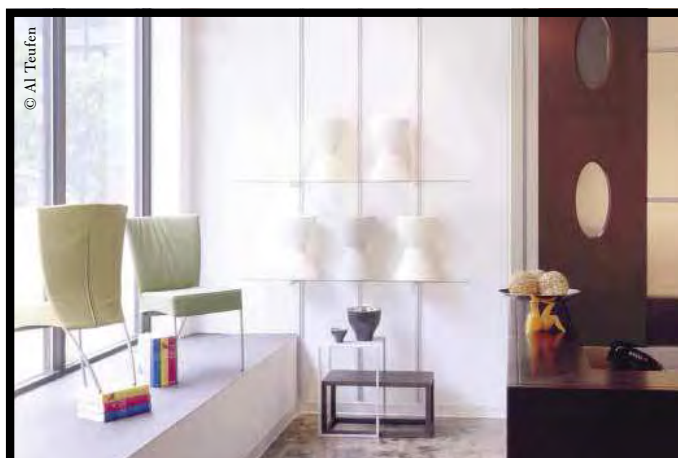
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Notice of AIA Candidates and Convention Business Items

Candidates for Institute Offices

Elections for the Institute's next First Vice President/President-elect, two Vice Presidents, and Treasurer will be held May 3–5, 2007, at the AIA 2007 National Convention and Design Exposition in San Antonio. If no candidate for First Vice President obtains a majority of the votes cast during the initial round of voting on May 3–4, a run-off election will take place on May 5, 2007. The Institute's Secretary has certified the following candidates:

For First Vice President/President-elect

Michael R. Broshar, FAIA (AIA Iowa)
Marvin Malecha, FAIA (AIA North Carolina)

For Vice President

Peter J. Arsenaault, AIA, NCARB, LEED AP (AIA Central New York)
David J. Brotman, FAIA (AIA California)
Clark D. Manus, FAIA (AIA California)

For Secretary

Hal P. Munger, FAIA (AIA Toledo)

Proposed Bylaws Amendments

The AIA Board of Directors is sponsoring amendments to the Institute's Bylaws, which are scheduled for consideration by the delegates at the annual business meeting in San Antonio on May 5, 2007. Bylaws amendments require the approval of a two-thirds majority of all votes accredited to be cast at convention.

Bylaws Amendment 07-A—Nomination and Election of Honorary Fellows

The Institute's Bylaws provide that an architect of esteemed character and distinguished achievements who is neither a U.S. citizen nor a resident of the United States, and who does not primarily practice architecture within the domain of the Institute, may be admitted to Honorary Fellowship. The Institute's Bylaws also currently provide that only a member of the Board, the College of Fellows or the International Committee may nominate qualified individuals for Honorary Fellowship. A committee of former presidents of the AIA has recommended that the scope of potential nominators be expanded to include any member of the Institute. This suggestion received a favorable response when it was brought to the Secretary's Advisory Committee and to the Board.

Bylaws Amendment 07-B—Architect Emeritus

The Institute's Bylaws currently provide that "any Architect member may apply for Emeritus status who has been in good standing in the Institute for fifteen successive years and either (i) has attained the age of 70, or (ii) has attained the age of 60 and is retired from the profession of architecture or is so incapacitated as to be unable to work in the profession." All Architect member rights, interests, privileges, titles, liabilities and obligations remain

unchanged upon advancement to Emeritus status, except that Members Emeritus may no longer be required to pay either regular or supplemental dues nor to maintain the right under law to practice and use the title Architect. In addition, the registration fee is waived for Emeritus members attending the national convention. Recently, the Secretary has received requests for dues waivers from several Architect members who are incapacitated but are ineligible for Emeritus status because they are not yet 60 years of age. Such dues waivers may be approved for only one year at a time, and may not be granted for more than three consecutive years. To ameliorate the hardships experienced by younger incapacitated members, the Board of Directors is sponsoring this amendment to the Institute Bylaws that would permit a member—regardless of age—to apply for emeritus status if s/he satisfies other eligibility requirements and is so incapacitated as to be unable to work in the profession.

Bylaws Amendment 07-C—Associate Emeritus Membership Category

The Institute's Bylaws currently provide that Architect members may achieve Emeritus status by satisfying certain eligibility requirements. (*See above.*) The Secretary of the Institute has investigated the benefits and disadvantages of opening Emeritus membership to Associate members. If Emeritus status were opened to Associate members on terms generally comparable to those used for Architect members, approximately 535 Associate members would satisfy current age requirements to achieve Emeritus status. If all were to achieve Emeritus status, they would expand the current Emeritus ranks by about eight percent. The Board sponsors this amendment to open Emeritus membership to Associate members.

Resolutions

The delegates at the AIA 2007 National Convention and Design Exposition will be asked to consider the following resolutions, which require approval by a majority vote:

- 07-1 Leading by Design: Elevating Collaboration as the Path to a Sustainable Future for Society and the Architecture Profession
- 07-2 Recognition of Newly Licensed Architect Members
- 07-3 Appreciation of Departing Members of the Council of Architectural Component Executives
- 07-4 Appreciation to Retiring Executive Committee and Board Members
- 07-5 Appreciation to the Host Chapter
- 07-6 Appreciation to Convention Committees
- 07-7 Appreciation to Exhibitors
- 07-8 Appreciation to RK Stewart, FAIA, and Barbara Lyons Stewart, AIA

For candidates' statements and the full text of the proposed Bylaws amendments and resolutions, visit the AIA Web site at www.aia.org.

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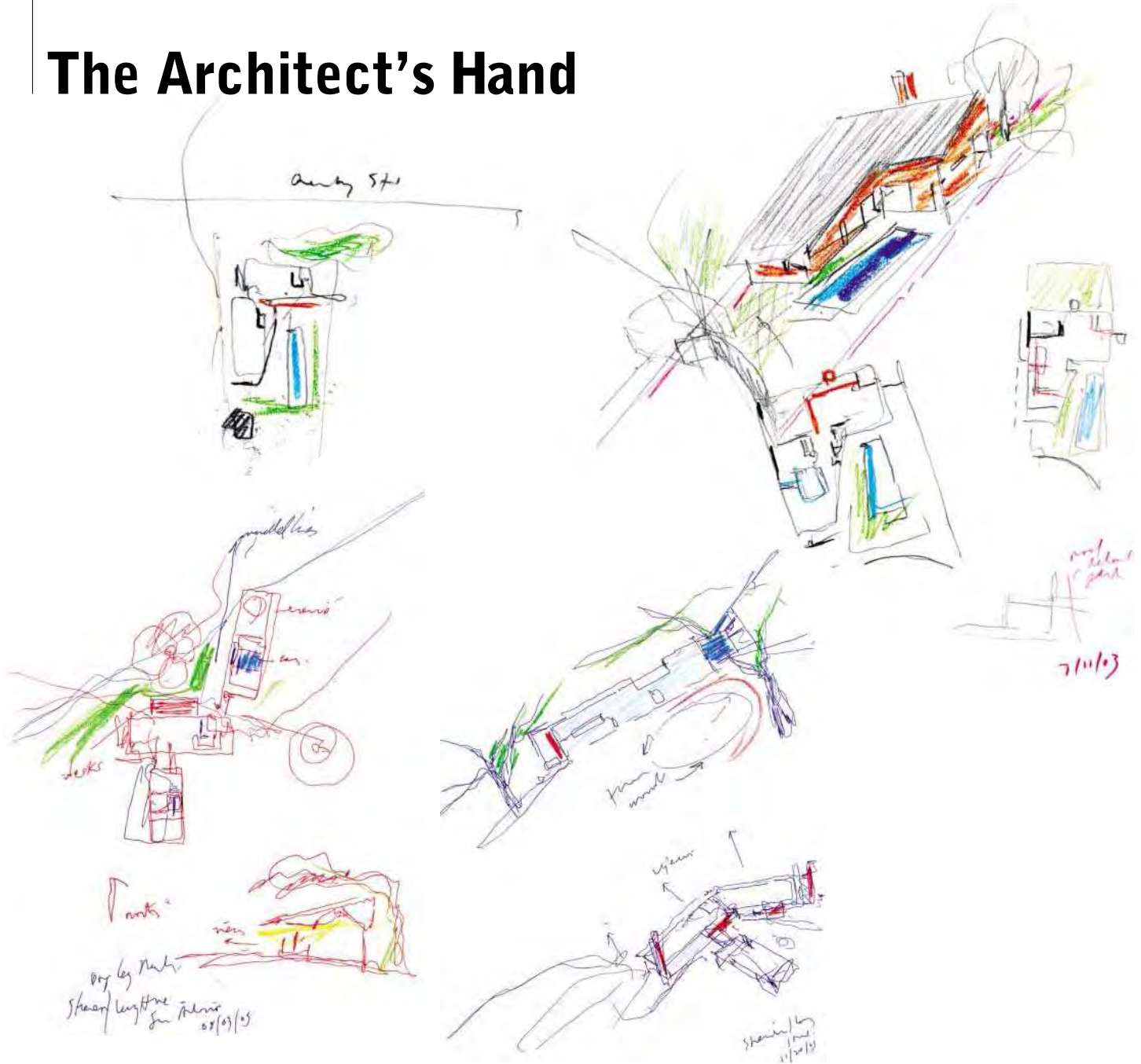
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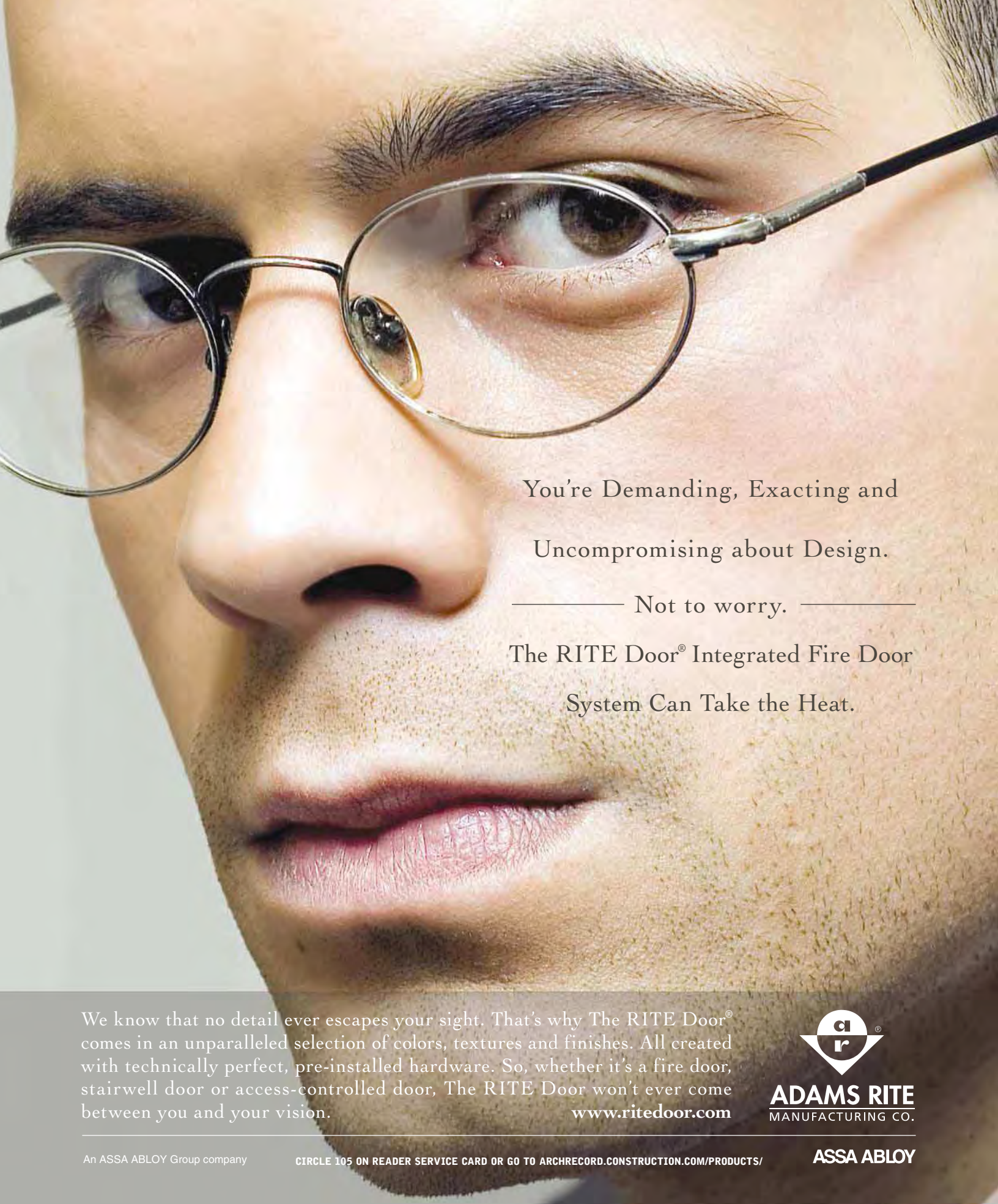
The Architect's Hand



Carlos Jimenez captures the moment

Hanneman Residence, Houston, Texas, graphite, prisma pencil, 2003 (top left and right); Boerne Residence, Boerne, Texas, floor plan and section: blue ink, prisma pencil, 2005 (middle and bottom right); floor plan and elevation study: red ink, prisma pencil, 2005 (middle and bottom left).

Sketching provides a private form of notetaking for Carlos Jimenez, a Houston-based designer and architecture professor at Rice University. "It's of the moment, and not self-conscious," he says. When Jimenez visited the sites for two houses he was designing in Texas (above), he took along prisma and graphite pencils and blue- or red-ink pens to jot his impressions down on paper and work out initial design concepts he would develop later. "Sketches help me to keep track of the placement of the trees, or potential views of the landscape from inside the house, and to arrive at my own understanding of the problem," he says. In the case of the residence in Boerne, Texas (unbuilt), designed in 2005, he used sketches to determine how trees could frame the house, shown by the green marks in the drawing (middle), and where he could place the indoor and outdoor fireplaces, shown by red marks (bottom right). With his design of the Hanneman residence in Houston (finished in 2005), sketches (upper right) helped Jimenez integrate the pool with the house on a tight site. As he says, "Drawing by hand is better than a computer: sketching gives me a distance." *Suzanne Stephens*

A close-up, high-resolution photograph of a man's face, focusing on his eyes and nose. He is wearing round, thin-rimmed glasses. The lighting is soft, highlighting the texture of his skin and the details of his facial features.

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